Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

[331003]

2. Name of Operator **[4323]**

9. API Well No. **30-025-49074**

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory **[98097]**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date

Title	Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GCP Rec 05/06/2021

KZ
06/22/2021

SL

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 05/29/2020

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

0. SHL: SESW / 261 FSL / 1876 FWL / TWSP: 26S / RANGE: 32E / SECTION: 24 / LAT: 32.021632 / LONG: -103.630993 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 100 FSL / 2310 FEL / TWSP: 26S / RANGE: 32E / SECTION: 24 / LAT: 32.021202 / LONG: -103.627279 (TVD: 11802 feet, MD: 11931 feet)

BHL: NWNE / 25 FNL / 2310 FEL / TWSP: 26S / RANGE: 32E / SECTION: 13 / LAT: 32.050289 / LONG: -103.627267 (TVD: 12124 feet, MD: 22647 feet)

BLM Point of Contact

Name: Candy Vigil

Title: LIE

Phone: (575) 234-5982

Email: cvigil@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-49074	98097	SANDERS TANK;UPPER WOLFCAMP

[4] Property Code	[5] Property Name	[6] Well Number
331003	SD 24 13 FED P415	15H

[7] OGRID No.	[8] Operator Name	[9] Elevation
4323	CHEVRON U.S.A. INC.	3134'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	24	26 SOUTH	32 EAST, N.M.P.M.		261'	SOUTH	1876'	WEST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	13	26 SOUTH	32 EAST, N.M.P.M.		25'	NORTH	2310'	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

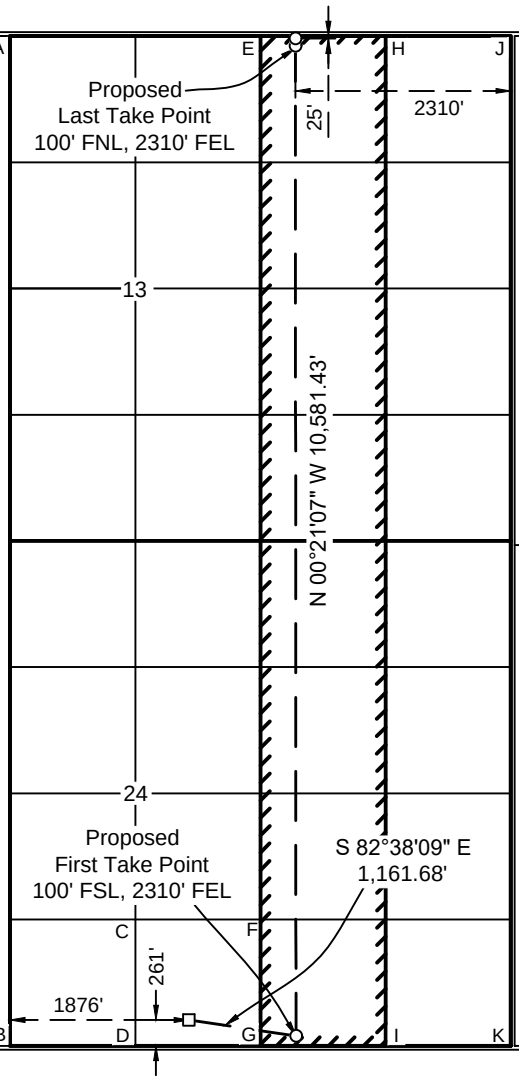
[16]

SD 24 13 FED P415 15H WELL			PROPOSED BOTTOM HOLE LOCATION		
X=	717,818	NAD 27	X=	718,906	NAD 27
Y=	372,259		Y=	382,691	
LAT.	32.021507 N		LAT.	32.050164 N	
LONG.	103.630525 W		LONG.	103.626797 W	
X=	759,006	NAD83/2011	X=	760,093	NAD83/2011
Y=	372,316		Y=	382,748	
LAT.	32.021632 N		LAT.	32.050289 N	
LONG.	103.630993 W		LONG.	103.627267 W	
ELEVATION +3134' NAVD 88					

PROPOSED FIRST TAKE POINT			PROPOSED LAST TAKE POINT		
X=	718,971	NAD 27	X=	718,906	NAD 27
Y=	372,110		Y=	382,616	
LAT.	32.021077 N		LAT.	32.049958 N	
LONG.	103.626811 W		LONG.	103.626797 W	
X=	760,158	NAD83/2011	X=	760,093	NAD83/2011
Y=	372,167		Y=	382,673	
LAT.	32.021202 N		LAT.	32.050083 N	
LONG.	103.627279 W		LONG.	103.627267 W	

CORNER COORDINATES TABLE (NAD 27)

A - Y=382677.22, X=715890.15
B - Y=371978.70, X=715943.63
C - Y=373332.23, X=717271.91
D - Y=371992.49, X=717277.98
E - Y=382711.66, X=718552.69
F - Y=373345.79, X=718605.59
G - Y=372006.29, X=718612.32
H - Y=382728.88, X=719883.96
I - Y=372020.08, X=719946.66
J - Y=382746.10, X=721215.23
K - Y=372033.87, X=721281.01



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Kayla Mcconnell 10/23/2019
Signature Date

KAYLA MCCONNELL
Printed Name

KAYLAMCCONNELL@CHEVRON.COM
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

06/25/2019
Date of Survey

Signature and Seal of Professional Surveyor:

ROBERT L. LASTRAPES
NEW MEXICO
23006
PROFESSIONAL SURVEYOR
07/16/2019

23006
Certificate Number

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

X Original Operator & OGRID No.: CHEVRON U S A INC (4323)
☐ Amended Date: 9/6/2019
Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: A C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule 19.15.18.12.A

Well(s)/Production Facility – Salado Draw CTB 24

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
SD 24 13 FED P415 13H	*Pending*	UL:N, Sec. 24, T26S- R32E	261' FSL, 1,826 FWL	5,000	0	
SD 24 13 FED P415 14H	*Pending*	UL:N, Sec. 24, T26S- R32E	261' FSL, 1,851 FWL	5,000	0	
SD 24 13 FED P415 15H	*Pending* **30-025-49074**	UL:N, Sec. 24, T26S- R32E	261' FSL, 1,876 FWL	5,000	0	
SD 24 13 FED P415 16H	*Pending*	UL:N, Sec. 24, T26S- R32E	261' FSL, 1,901 FWL	5,000	0	

Gathering System and Pipeline Notification

Wells will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Delaware Basin Midstream, LLC (DBM) and will be connected to DBM's low pressure gathering system located in LEA County, New Mexico. The facility is already connected to a low pressure gathering system. Chevron provides (periodically) to DBM a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Chevron and DBM have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DBM's Ramsey Processing Plant located in Sec.36, Block 57-T1, Reeves County, Texas. The gas produced from the production facility may also be sent to Mark West's low pressure gathering system and will be processed at Mark West's Tornado Processing Plant located in Loving County, Texas. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, wells will be turned to permanent production facilities. Wells will have temporary sand catchers that will be installed at the well location to prevent sand from getting into the flowlines. These sand separators will be blown down periodically which will result in minimal venting of gas. Gas sales will start as soon as the wells start flowing through the production facilities, unless there are operational issues on DBM's system at that time. Based on current information, it is Chevron's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

ONSHORE ORDER NO. 1
Chevron
SD 24 13 FED P415 15H
Lea County, NM

CONFIDENTIAL -- TIGHT HOLE
DRILLING PLAN
PAGE: 1

1. **FORMATION TOPS**

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA TVD	KBTVD	MD
Rustler (RSLR)		601	
Castile (CSTL)		2909	
Lamar (LMAR)		4592	
Bell Canyon (BLCN)		4626	
Cherry Canyon (CRCN)		5658	
Brushy Canyon (BCN)		7256	
Bone Spring (BSGL)		8803	
Upper Avalon (AVN)		8857	
Top Bone Spring 1 (FBS)		9703	
Top Bone Spring 2 (SBU)		10321	
Third Bone Spring 1st Carbonate (		10791	
Top Bone Spring 3 (TBS)		11478	
Third Bone Spring Target 1		11825	
Wolfcamp A (WCA)		11902	
Wolfcamp A Target 1 (Y Sand)		12060	
Wolfcamp A Target 2 (WCA SH)		12103	
Wolfcamp B (WCB)		12616	
Lateral TD (WCA T2 WCA SH)		12,124	22647

2. **ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS**

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Deepest Expected Base of Fresh Water		700
Water	Rustler	601
Water	Bell Canyon	4626
Water	Cherry Canyon	5658
Oil/Gas	Brushy Canyon	7256
Oil/Gas	Bone Spring (BSGL)	8803
Oil/Gas	Upper Avalon (AVN)	8857
Oil/Gas	Top Bone Spring 1	9703
Oil/Gas	Top Bone Spring 2	10321
Oil/Gas	Top Bone Spring 3	11478
Oil/Gas	Third Bone Spring Target 1	11825
Oil/Gas	Wolfcamp	11902
Oil/Gas	Wolfcamp A Target 1 (Y Sand)	12060
Oil/Gas	Wolfcamp A Target 2 (WCA SH)	12103

All shows of fresh water and minerals will be reported and protected

3. **BOP EQUIPMENT**

Will have a minimum of a 10000 psi rig stack (see proposed schematic) for drill out below surface (Wolfcamp is not exposed until drillout of the intermediate casing). Could possibly utilize the 5000 psi rig stack (see proposed schematic) for drill out below surface casing due to the availabity of 10 M annular. (Wolfcamp is not exposed until drillout of the intermediate casing) Stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad (see attached specs) BOP test will be conducted by a third party.

Chevron requests a variance to use a FMC UH-S Multibowl wellhead, which will be run through the rig foor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal.

4. **CASING PROGRAM**

a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	850'	17-1/2"	13-3/8"	54.5 #	J55	BTC	New
Intermediate 1	0'	4650'	12-1/4"	9-5/8"	43.5#	L-80IC	LTC	New
Intermediate 2 (Liner)	4,350'	10,930'	8-1/2"	7-5/8"	29.7 #	L-80	W-513	New
Production	0'	10,430'	6-3/4"	5.5"	20#	P-110-ICY	TXP BTC	New
(Taper String)	10,430'	22,647'	6-3/4"	5"	18#	P-110 IC	W-521	New

b. Casing design subject to revision based on geologic conditions encountered.

c. *****A "Worst Case" casing design for wells in a particular area is used below to calculate the Casing Safety Factors. If for any reason the casing design for a particular well requires setting casing deeper than the following "worst case" design, then the Casing Safety Factors will be recalcuated & sent to the BLM prior to drilling.**

d. **Chevron will fill casing at a minimum of every 20 jts (840') while running for intermediate and production casing in order to maintain collapse SF.**

SF Calculations based on the following "Worst Case" casing design:

Surface Casing: 1150' TVD
Intermediate Casing: 5132' TVD
Intermediate Liner: 11,650' TVD
Production Casing: 23,000' MD/12,852' TVD (10,300' VS @ 90 deg inc)

4 String Design

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.48	2.10	4.91	1.80
Intermediate	1.52	1.87	2.79	1.83
Liner	1.33	2.59	1.60	1.66
Production	1.10	1.39	1.61	1.32

Min SF is the smallest of a group of safety factors that include the following considerations:

Burst Design	Surf	Int (1)	Int 2 (Liner)	Prod
Pressure Test- Surface, Int, Prod Csg P external: Water P internal: Test psi + next section heaviest mud in csg	X	X	X	X
Displace to Gas- Surf Csg P external: Water P internal: Dry Gas from Next Csg Point	X			
Frac at Shoe, Gas to Surf- Int Csg P external: Water P internal: Dry Gas, 16 ppg Frac Gradient		X	X	
Stimulation (Frac) Pressures- Prod Csg P external: Water P internal: Max inj pressure w/ heaviest injected fluid				X
Tubing leak- Prod Csg P external: Water P internal: Leak just below surf, 8.7 ppg packer fluid				X
Collapse Design				
Full Evacuation P external: Water gradient in cement, mud above TOC P internal: none	X	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X	X
Tension Design				
100k lb overpull	X	X	X	X

5. **CEMENTING PROGRAM**

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks	Water	Additives
Surface				(ppg)	(sx/cu ft)	Open Hole		gal/sk	
Tail	Class C	0'	850'	14.8	1.33	50	650	6.57	Extender Antifoam Retarder
Intermediate									
Lead	Class C	0'	4,350'	11.9	2.20	30	730	14.69	Antifoam Extender Salt Retarder Viscosifier
Tail	Class C	4,350'	4650'	14.8	1.33	30	113	6.29	Antifoam Retarder Viscosifier
Liner									
Lead	Class C	4,350'	10,430'	11.9	2.17	140	462	14.69	Antifoam Extender Salt Retarder Viscosifier
Tail	Class C	10,430'	10,930'	14.8	1.33	50	59	6.29	Antifoam Extender Salt Retarder Viscosifier
Production									
Lead	Class H	7,500'	21,147'	15.6	1.19	35	1558	5.18	Antifoam Dispersent Fluid Loss Retarder Viscosifier
Tail	Class H	21,147'	22,647'	16.0	1.78	20	110	7.45	Antifoam Dispersent Fluid Loss Retarder Viscosifier

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. Production casing will have one horizontal type centralizer on every joint for the first 1000' from TD, then every other joint to EOB, and then every third joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing.

6. **MUD PROGRAM**

From	To	TVD Top	TVD Btm	Type	Weight	F. Vis	Filtrate
0'	850'	0'	850'	Spud Mud	8.3-8.7	32 - 34	NC - NC
850'	4650'	850'	4,590'	Brine	9.4-10.6	28 - 30	25-30
4650'	10,930'	4,590'	10,811'	Cut Brine	8.8-10.0	70 - 75	25-30
10,930'	22,647'	10,811'	12,124'	Oil Based Mud	12.0-14.8	70 - 75	25-30

A closed system will by utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill.

All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

7. **TESTING, LOGGING, AND CORING**

The anticipated type and amount of testing, logging, and coring are as follows:

a. Drill stem tests are not planned.
b. The logging program will be as follows:

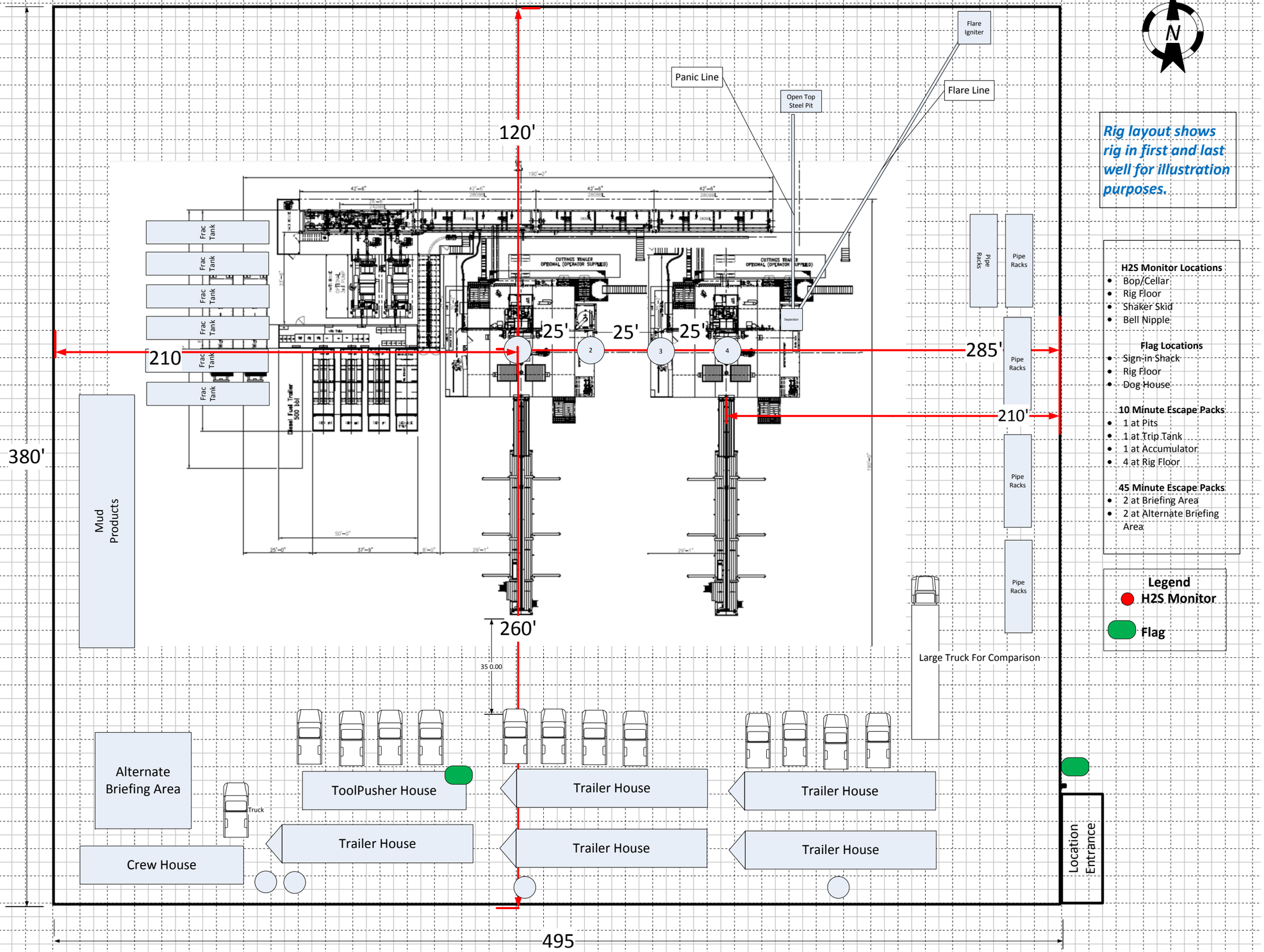
TYPE	Logs	Interval	Timing	Vendor
Mudlogs	2 man mudlog	Int Csg to TD	Drillout of Int Csg	TBD
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling	TBD

c. Conventional whole core samples are not planned.
d. A Directional Survey will be run.

8. **ABNORMAL PRESSURES AND HYDROGEN SULFIDE**

a. No abnormal pressures or temperatures are expected. Estimated BHP at intermediate TD is: 5750 psi
No abnormal pressures or temperatures are expected. Estimated BHP at production TD is: 8650 psi
b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered

Nabors Pace X Pad 415



Rig layout shows rig in first and last well for illustration purposes.

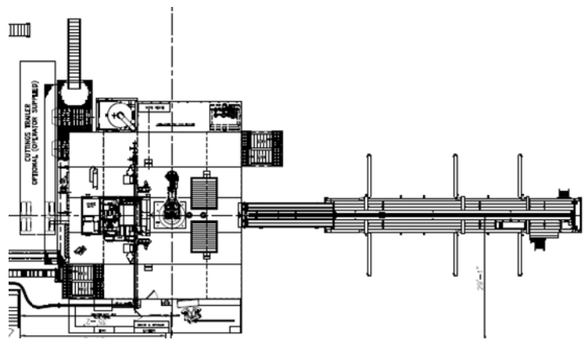
H2S Monitor Locations
- Bop/Cellar
- Rig Floor
- Shaker Skid
- Bell Nipple

Flag Locations
- Sign-in Shack
- Rig Floor
- Dog House

10 Minute Escape Packs
- 1 at Pits
- 1 at Trip Tank
- 1 at Accumulator
- 4 at Rig Floor

45 Minute Escape Packs
- 2 at Briefing Area
- 2 at Alternate Briefing Area

Legend
- **H2S Monitor**
- **Flag**


CITING ENGER
OPTIONAL (OPERATOR SUPPLIED)

H_2S Preparedness and Contingency Plan Summary

SD 24 13 FED P415 **SD 24 13 FED P416**

Training

MCBU Drilling and Completions H_2S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H_2S.

Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H_2S, who are not required to perform work in H_2S areas, will be provided with an awareness level of H_2S training prior to entering any H_2S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H_2S
2. Health hazards of H_2S
3. Personal protective equipment
4. Information regarding potential sources of H_2S
5. Alarms and emergency evacuation procedures

Awareness level training will be developed and conducted by personnel who are qualified either by specific training, educational experience and/or work-related background.

Advanced Level H_2S Training

Employees and contractors required to work in areas that may contain H_2S will be provided with Advanced Level H_2S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H_2S training will include:

1. H_2S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H_2S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H_2S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H_2S environments. Note: Employees who work at sites that participate in the Chevron Respirator User program will require separate respirator training as required by the MCBU Respiratory Protection Program;
5. Basic overview of emergency rescue techniques, first aid, CPR and medical evaluation procedures. Employees who may be required to perform “standby” duties are required to receive additional first aid and CPR training, which is not covered in the Advanced Level H_2S training;
6. Proficiency examination covering all course material.

Advanced H_2S training courses will be instructed by personnel who have successfully completed an appropriate H_2S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.

H_2S Preparedness and Contingency Plan Summary

H_2S Training Certification

All employees and visitors will be issued an H_2S training certification card (or certificate) upon successful completion of the appropriate H_2S training course. Personnel working in an H_2S environment will carry a current H_2S training certification card as proof of having received the proper training on their person at all times.

Briefing Area

A minimum of two briefing areas will be established in locations that at least one area will be up-wind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated upwind briefing areas for instructions.

H_2S Equipment

Respiratory Protection

a) Six 30 minute SCBAs – 2 at each briefing area and 2 in the Safety Trailer.

b) Eight 5 minute EBAs – 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

Visual Warning System

a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.

b) Two windsocks will be on location, one on the dog house and one on the Drill Site Manager's Trailer.

H_2S Detection and Monitoring System

a) H_2S monitoring system (sensor head, warning light and siren) placed throughout rig.

- Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
- Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.

H_2S Preparedness and Contingency Plan Summary

Well Control Equipment

a) Flare Line 150' from wellhead with igniter.

b) Choke manifold with a remotely operated choke.

c) Mud / gas separator

Mud Program

In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

1. Use of a degasser
2. Use of a zinc based mud treatment
3. Increasing mud weight

Public Safety - Emergency Assistance

Agency	Telephone Number
Lea County Sheriff's Department	575-396-3611
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Lea County Regional Medical Center	575-492-5000
Jal Community Hospital	505-395-2511
Lea County Emergency Management	575-396-8602
Poison Control Center	800-222-1222

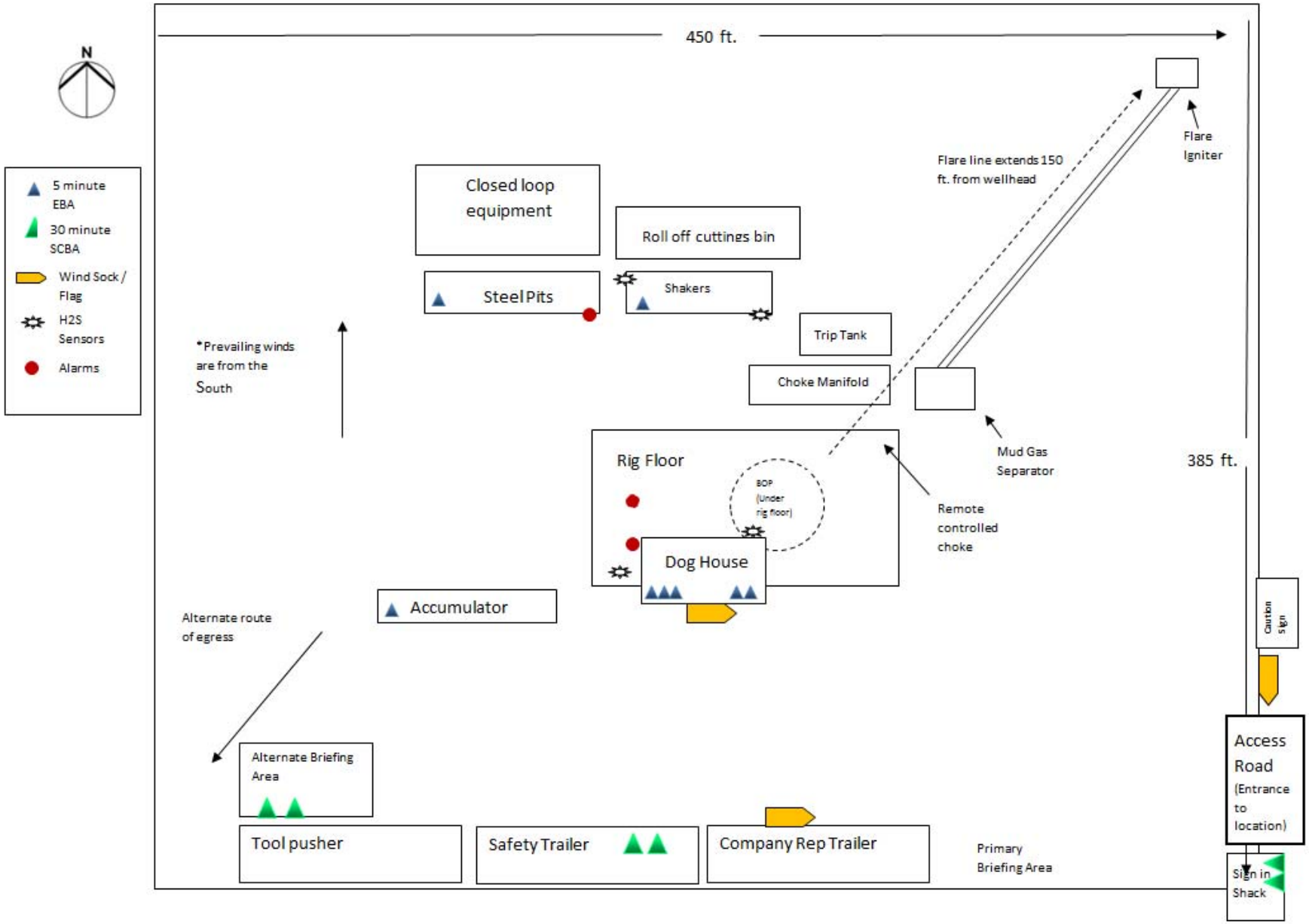
H_2S Preparedness and Contingency Plan Summary

Chevron MCBU D&C Emergency Notifications

Below are lists of contacts to be used in emergency situations.

	Name	Title	Office Number	Cell Phone
1.	**Tony Bacon**	Drilling Engineer	(713) 372-4025	(406) 989-0415
2.	Chuck Schaff	Superintendent	(713) 372-4500	(281) 714-9329
5.	Scott Bowman	Drilling Manager	(713) 372-4479	(713) 492-4479
6.	Kyle Eastman	Operations Manager		(281) 755-6554
7.	Scott Simpson	D&C HES	(713) 372-7597	(281) 414 -6675
8.	Cynthia Lynch	Completion Engineer		(281) 254-0483

H_2S Preparedness and Contingency Plan Summary



Schlumberger

Chevron SD 24 13 Fed P415 15H Rev0 jjb 02Aug19 Proposal Geodetic Report

(Def Plan)

Report Date:	August 03, 2019 - 04:29 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Chevron	**Vertical Section Azimuth:**	359.650 ° (Grid North)
Field:	NM Lea County (NAD 27)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Chevron SD 24 13 Fed P415 / 15H	**TVD Reference Datum:**	RKB = 32.6ft
Well:	SD 24 13 Fed P415 15H	**TVD Reference Elevation:**	3166.600 ft above
Borehole:	SD 24 13 Fed P415 15H	**Seabed / Ground Elevation:**	3134.000 ft above
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.656 °
Survey Name:	Chevron SD 24 13 Fed P415 15H Rev0 jjb 02Aug19	**Total Gravity Field Strength:**	998.4358mgn (9.80665 Based)
Survey Date:	August 03, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	115.370 ° / 11801.992 ft / 6.404 / 0.970	**Total Magnetic Field Strength:**	47658.493 nT
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.611 °
Location Lat / Long:	N 32° 1' 17.42457", W 103° 37' 49.89448"	**Declination Date:**	August 03, 2019
Location Grid N/E Y/X:	N 372259.000 ftUS, E 717818.000 ftUS	**Magnetic Declination Model:**	HDGM 2019
CRS Grid Convergence Angle:	0.3727 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99996343	**Grid Convergence Used:**	0.3727 °
Version / Patch:	2.10.760.0	**Total Corr Mag North->Grid North:**	6.2829 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
	100.00	0.00	99.79	100.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
	200.00	0.00	99.79	200.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
	300.00	0.00	99.79	300.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
	400.00	0.00	99.79	400.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
	500.00	0.00	99.79	500.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
	600.00	0.00	99.79	600.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
Rustler	*601.27*	*0.00*	*99.79*	*601.27*	*0.00*	*0.00*	*0.00*	*0.00*	*372259.00*	*717818.00*	*N 32 1 17.42*	*W 103 37 49.89*
	700.00	0.00	99.79	700.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
	800.00	0.00	99.79	800.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
13 3/8" Casing	*850.00*	*0.00*	*99.79*	*850.00*	*0.00*	*0.00*	*0.00*	*0.00*	*372259.00*	*717818.00*	*N 32 1 17.42*	*W 103 37 49.89*
	900.00	0.00	99.79	900.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
	1000.00	0.00	99.79	1000.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
Build 1.5°/100ft	1100.00	0.00	99.79	1100.00	0.00	0.00	0.00	0.00	372259.00	717818.00	N 32 1 17.42	W 103 37 49.89
	1200.00	1.50	99.79	1199.99	-0.23	-0.22	1.29	1.50	372258.78	717819.29	N 32 1 17.42	W 103 37 49.88
	1300.00	3.00	99.79	1299.91	-0.92	-0.89	5.16	1.50	372258.11	717823.16	N 32 1 17.42	W 103 37 49.83
	1400.00	4.50	99.79	1399.69	-2.07	-2.00	11.60	1.50	372257.00	717829.60	N 32 1 17.40	W 103 37 49.76
	1500.00	6.00	99.79	1499.27	-3.68	-3.56	20.62	1.50	372255.44	717838.62	N 32 1 17.39	W 103 37 49.66
	1600.00	7.50	99.79	1598.57	-5.75	-5.56	32.20	1.50	372253.44	717850.20	N 32 1 17.37	W 103 37 49.52
	1700.00	9.00	99.79	1697.54	-8.28	-8.00	46.34	1.50	372251.00	717864.34	N 32 1 17.34	W 103 37 49.36
	1800.00	10.50	99.79	1796.09	-11.26	-10.88	63.03	1.50	372248.13	717881.03	N 32 1 17.31	W 103 37 49.16
	1900.00	12.00	99.79	1894.16	-14.69	-14.19	82.25	1.50	372244.81	717900.25	N 32 1 17.28	W 103 37 48.94
Hold	1933.35	12.50	99.79	1926.75	-15.94	-15.40	89.23	1.50	372243.61	717907.22	N 32 1 17.27	W 103 37 48.86
	2000.00	12.50	99.79	1991.82	-18.48	-17.85	103.44	0.00	372241.15	717921.44	N 32 1 17.24	W 103 37 48.69
	2100.00	12.50	99.79	2089.45	-22.29	-21.53	124.77	0.00	372237.47	717942.77	N 32 1 17.20	W 103 37 48.45
	2200.00	12.50	99.79	2187.08	-26.10	-25.21	146.10	0.00	372233.79	717964.10	N 32 1 17.17	W 103 37 48.20
	2300.00	12.50	99.79	2284.71	-29.91	-28.89	167.43	0.00	372230.11	717985.42	N 32 1 17.13	W 103 37 47.95
	2400.00	12.50	99.79	2382.34	-33.72	-32.57	188.76	0.00	372226.43	718006.75	N 32 1 17.09	W 103 37 47.70
	2500.00	12.50	99.79	2479.97	-37.53	-36.25	210.09	0.00	372222.75	718028.08	N 32 1 17.05	W 103 37 47.46
	2600.00	12.50	99.79	2577.60	-41.34	-39.93	231.42	0.00	372219.07	718049.41	N 32 1 17.01	W 103 37 47.21
	2700.00	12.50	99.79	2675.23	-45.15	-43.61	252.75	0.00	372215.39	718070.74	N 32 1 16.98	W 103 37 46.96
	2800.00	12.50	99.79	2772.86	-48.96	-47.29	274.08	0.00	372211.71	718092.07	N 32 1 16.94	W 103 37 46.71
	2900.00	12.50	99.79	2870.49	-52.77	-50.97	295.41	0.00	372208.03	718113.39	N 32 1 16.90	W 103 37 46.47
Castile	*2939.67*	*12.50*	*99.79*	*2909.22*	*-54.28*	*-52.43*	*303.87*	*0.00*	*372206.57*	*718121.86*	*N 32 1 16.89*	*W 103 37 46.37*
	3000.00	12.50	99.79	2968.12	-56.58	-54.65	316.74	0.00	372204.35	718134.72	N 32 1 16.86	W 103 37 46.22
	3100.00	12.50	99.79	3065.75	-60.39	-58.33	338.06	0.00	372200.67	718156.05	N 32 1 16.83	W 103 37 45.97
	3200.00	12.50	99.79	3163.38	-64.20	-62.01	359.39	0.00	372196.99	718177.38	N 32 1 16.79	W 103 37 45.72
	3300.00	12.50	99.79	3261.01	-68.01	-65.69	380.72	0.00	372193.31	718198.71	N 32 1 16.75	W 103 37 45.48
	3400.00	12.50	99.79	3358.64	-71.83	-69.37	402.05	0.00	372189.63	718220.04	N 32 1 16.71	W 103 37 45.23
	3500.00	12.50	99.79	3456.27	-75.64	-73.05	423.38	0.00	372185.95	718241.36	N 32 1 16.67	W 103 37 44.98
	3600.00	12.50	99.79	3553.90	-79.45	-76.73	444.71	0.00	372182.27	718262.69	N 32 1 16.64	W 103 37 44.74
	3700.00	12.50	99.79	3651.53	-83.26	-80.41	466.04	0.00	372178.59	718284.02	N 32 1 16.60	W 103 37 44.49
	3800.00	12.50	99.79	3749.16	-87.07	-84.09	487.37	0.00	372174.91	718305.35	N 32 1 16.56	W 103 37 44.24
	3900.00	12.50	99.79	3846.79	-90.88	-87.77	508.70	0.00	372171.23	718326.68	N 32 1 16.52	W 103 37 43.99
	4000.00	12.50	99.79	3944.42	-94.69	-91.45	530.03	0.00	372167.55	718348.01	N 32 1 16.49	W 103 37 43.75
	4100.00	12.50	99.79	4042.04	-98.50	-95.13	551.36	0.00	372163.87	718369.34	N 32 1 16.45	W 103 37 43.50
	4200.00	12.50	99.79	4139.67	-102.31	-98.81	572.69	0.00	372160.19	718390.66	N 32 1 16.41	W 103 37 43.25
	4300.00	12.50	99.79	4237.30	-106.12	-102.49	594.01	0.00	372156.51	718411.99	N 32 1 16.37	W 103 37 43.00
	4400.00	12.50	99.79	4334.93	-109.93	-106.17	615.34	0.00	372152.83	718433.32	N 32 1 16.33	W 103 37 42.76
	4500.00	12.50	99.79	4432.56	-113.74	-109.85	636.67	0.00	372149.15	718454.65	N 32 1 16.30	W 103 37 42.51
	4600.00	12.50	99.79	4530.19	-117.55	-113.53	658.00	0.00	372145.47	718475.98	N 32 1 16.26	W 103 37 42.26
Lamar	*4663.04*	*12.50*	*99.79*	*4591.74*	*-119.95*	*-115.85*	*671.45*	*0.00*	*372143.15*	*718489.42*	*N 32 1 16.23*	*W 103 37 42.10*
9 5/8" Casing	*4678.67*	*12.50*	*99.79*	*4607.00*	*-120.55*	*-116.43*	*674.78*	*0.00*	*372142.58*	*718492.76*	*N 32 1 16.23*	*W 103 37 42.07*
Bell Canyon	*4697.71*	*12.50*	*99.79*	*4625.59*	*-121.27*	*-117.13*	*678.84*	*0.00*	*372141.88*	*718496.82*	*N 32 1 16.22*	*W 103 37 42.02*
	4700.00	12.50	99.79	4627.82	-121.36	-117.21	679.33	0.00	372141.79	718497.31	N 32 1 16.22	W 103 37 42.01
	4800.00	12.50	99.79	4725.45	-125.17	-120.89	700.66	0.00	372138.11	718518.63	N 32 1 16.18	W 103 37 41.77
	4900.00	12.50	99.79	4823.08	-128.98	-124.57	721.99	0.00	372134.43	718539.96	N 32 1 16.15	W 103 37 41.52
	5000.00	12.50	99.79	4920.71	-132.79	-128.25	743.32	0.00	372130.75	718561.29	N 32 1 16.11	W 103 37 41.27
	5100.00	12.50	99.79	5018.34	-136.60	-131.93	764.65	0.00	372127.07	718582.62	N 32 1 16.07	W 103 37 41.02
	5200.00	12.50	99.79	5115.97	-140.41	-135.61	785.98	0.00	372123.39	718603.95	N 32 1 16.03	W 103 37 40.78
	5300.00	12.50	99.79	5213.60	-144.22	-139.29	807.31	0.00	372119.71	718625.28	N 32 1 15.99	W 103 37 40.53
	5400.00	12.50	99.79	5311.23	-148.03	-142.97	828.64	0.00	372116.03	718646.60	N 32 1 15.96	W 103 37 40.28
	5500.00	12.50	99.79	5408.86	-151.84	-146.65	849.96	0.00	372112.35	718667.93	N 32 1 15.92	W 103 37 40.03
	5600.00	12.50	99.79	5506.49	-155.65	-150.33	871.29	0.00	372108.67	718689.26	N 32 1 15.88	W 103 37 39.79
	5700.00	12.50	99.79	5604.12	-159.46	-154.01	892.62	0.00	372104.99	718710.59	N 32 1 15.84	W 103 37 39.54
Cherry Canyon	*5755.30*	*12.50*	*99.79*	*5658.11*	*-161.57*	*-156.05*	*904.42*	*0.00*	*372102.96*	*718722.38*	*N 32 1 15.82*	*W 103 37 39.40*
	5800.00	12.50	99.79	5701.75	-163.27	-157.69	913.95	0.00	372101.31	718731.92	N 32 1 15.81	W 103 37 39.29
	5900.00	12.50	99.79	5799.38	-167.08	-161.37	935.28	0.00	372097.63	718753.25	N 32 1 15.77	W 103 37 39.04
	6000.00	12.50	99.79	5897.01	-170.89	-165.05	956.61	0.00	372093.95	718774.57	N 32 1 15.73	W 103 37 38.80
	6100.00	12.50	99.79	5994.63	-174.71	-168.73	977.94	0.00	372090.27	718795.90	N 32 1 15.69	W 103 37 38.55
	6200.00	12.50	99.79	6092.26	-178.52	-172.41	999.27	0.00	372086.59	718817.23	N 32 1 15.65	W 103 37 38.30
	6300.00	12.50	99.79	6189.89	-182.33	-176.09	1020.60	0.00	372082.91	718838.56	N 32 1 15.62	W 103 37 38.05
	6400.00	12.50	99.79	6287.52	-186.14	-179.78	1041.93	0.00	372079.23	718859.89	N 32 1 15.58	W 103 37 37.81
	6500.00	12.50	99.79	6385.15	-189.95	-183.46	1063.26	0.00	372075.55	718881.22	N 32 1 15.54	W 103 37 37.56
Drop 1.5°/100ft	6504.06	12.50	99.79	6389.12	-190.10	-183.60	1064.12	0.00	372075.40	718882.08	N 32 1 15.54	W 103 37 37.55
	6600.00	11.06	99.79	6483.03	-193.55	-186.93	1083.42	1.50	372072.07	718901.38	N 32 1 15.50	W 103 37 37.33
	6700.00	9.56	99.79	6581.42	-196.70	-189.98	1101.06	1.50	372069.03	718919.02	N 32 1 15.47	W 103 37 37.12
	6800.00	8.06	99.79	6680.23	-199.40	-192.58	1116.16	1.50	372066.42	718934.11	N 32 1 15.45	W 103 37 36.95
	6900.00	6.56	99.79	6779.42	-201.64	-194.75	1128.70	1.50	372064.26	718946.65	N 32 1 15.42	W 103 37 36.80
	7000.00	5.06	99.79	6878.90	-203.42	-196.47	1138.67	1.50	372062.54	718956.63	N 32 1 15.41	W 103 37 36.68
	7100.00	3.56	99.79	6978.61	-204.74	-197.75	1146.08	1.50	372061.26	718964.04	N 32 1 15.39	W 103 37 36.60
	7200.00	2.06	99.79	7078.49	-205.61	-198.58	1150.91	1.50	372060.43	718968.87	N 32 1 15.39	W 103 37 36.54

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7300.00	0.56	99.79	7178.46	-206.01	-198.97	1153.17	1.50	372060.04	718971.13	N 32 1 15.38	W 103 37 36.52
Hold Vertical	7337.41	0.00	99.79	7215.87	-206.04	-199.00	1153.35	1.50	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
Brushy Canyon	*7377.93*	*0.00*	*99.79*	*7256.39*	*-206.04*	*-199.00*	*1153.35*	*0.00*	*372060.01*	*718971.31*	*N 32 1 15.38*	*W 103 37 36.51*
	7400.00	0.00	99.79	7278.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	7500.00	0.00	99.79	7378.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	7600.00	0.00	99.79	7478.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	7700.00	0.00	99.79	7578.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	7800.00	0.00	99.79	7678.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	7900.00	0.00	99.79	7778.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	8000.00	0.00	99.79	7878.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	8100.00	0.00	99.79	7978.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	8200.00	0.00	99.79	8078.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	8300.00	0.00	99.79	8178.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	8400.00	0.00	99.79	8278.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	8500.00	0.00	99.79	8378.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	8600.00	0.00	99.79	8478.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	8700.00	0.00	99.79	8578.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	8800.00	0.00	99.79	8678.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	8900.00	0.00	99.79	8778.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
Bone Spring	*8924.15*	*0.00*	*99.79*	*8802.61*	*-206.04*	*-199.00*	*1153.35*	*0.00*	*372060.01*	*718971.31*	*N 32 1 15.38*	*W 103 37 36.51*
Upper Avalon	*8978.56*	*0.00*	*99.79*	*8857.02*	*-206.04*	*-199.00*	*1153.35*	*0.00*	*372060.01*	*718971.31*	*N 32 1 15.38*	*W 103 37 36.51*
	9000.00	0.00	99.79	8878.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	9100.00	0.00	99.79	8978.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	9200.00	0.00	99.79	9078.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	9300.00	0.00	99.79	9178.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	9400.00	0.00	99.79	9278.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	9500.00	0.00	99.79	9378.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	9600.00	0.00	99.79	9478.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	9700.00	0.00	99.79	9578.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	9800.00	0.00	99.79	9678.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
Top Bone Spring 1	*9824.71*	*0.00*	*99.79*	*9703.17*	*-206.04*	*-199.00*	*1153.35*	*0.00*	*372060.01*	*718971.31*	*N 32 1 15.38*	*W 103 37 36.51*
	9900.00	0.00	99.79	9778.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	10000.00	0.00	99.79	9878.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	10100.00	0.00	99.79	9978.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	10200.00	0.00	99.79	10078.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	10300.00	0.00	99.79	10178.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	10400.00	0.00	99.79	10278.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
Top Bone Spring 2	*10442.06*	*0.00*	*99.79*	*10320.52*	*-206.04*	*-199.00*	*1153.35*	*0.00*	*372060.01*	*718971.31*	*N 32 1 15.38*	*W 103 37 36.51*
	10500.00	0.00	99.79	10378.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	10600.00	0.00	99.79	10478.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	10700.00	0.00	99.79	10578.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	10800.00	0.00	99.79	10678.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	10900.00	0.00	99.79	10778.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
Third Bone Spring 1st Carbonate	*10912.75*	*0.00*	*99.79*	*10791.21*	*-206.04*	*-199.00*	*1153.35*	*0.00*	*372060.01*	*718971.31*	*N 32 1 15.38*	*W 103 37 36.51*
7 5/8" Casing	*10938.54*	*0.00*	*99.79*	*10817.00*	*-206.04*	*-199.00*	*1153.35*	*0.00*	*372060.01*	*718971.31*	*N 32 1 15.38*	*W 103 37 36.51*
	11000.00	0.00	99.79	10878.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	11100.00	0.00	99.79	10978.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	11200.00	0.00	99.79	11078.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	11300.00	0.00	99.79	11178.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	11400.00	0.00	99.79	11278.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	11500.00	0.00	99.79	11378.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
Top Bone Spring 3	*11599.54*	*0.00*	*99.79*	*11478.00*	*-206.04*	*-199.00*	*1153.35*	*0.00*	*372060.01*	*718971.31*	*N 32 1 15.38*	*W 103 37 36.51*
	11600.00	0.00	99.79	11478.46	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
KOP, Build 10°/100ft	11688.71	0.00	99.79	11567.17	-206.04	-199.00	1153.35	0.00	372060.01	718971.31	N 32 1 15.38	W 103 37 36.51
	11700.00	1.13	359.65	11578.46	-205.93	-198.89	1153.35	10.00	372060.12	718971.30	N 32 1 15.38	W 103 37 36.51
	11800.00	11.13	359.65	11677.76	-195.27	-188.23	1153.28	10.00	372070.78	718971.24	N 32 1 15.49	W 103 37 36.51
	11900.00	21.13	359.65	11773.70	-167.52	-160.48	1153.12	10.00	372098.53	718971.07	N 32 1 15.76	W 103 37 36.51
FTP Cross	*11931.00*	*24.23*	*359.65*	*11802.30*	*-155.57*	*-148.53*	*1153.04*	*10.00*	*372110.48*	*718971.00*	*N 32 1 15.88*	*W 103 37 36.51*
Third Bone Spring Target 1	*11956.14*	*26.74*	*359.65*	*11825.00*	*-144.75*	*-137.71*	*1152.98*	*10.00*	*372121.29*	*718970.93*	*N 32 1 15.99*	*W 103 37 36.51*
	12000.00	31.13	359.65	11863.37	-123.54	-116.50	1152.85	10.00	372142.51	718970.80	N 32 1 16.20	W 103 37 36.51
Wolfcamp A	*12046.42*	*35.77*	*359.65*	*11902.09*	*-97.96*	*-90.92*	*1152.69*	*10.00*	*372168.08*	*718970.65*	*N 32 1 16.45*	*W 103 37 36.51*
	12100.00	41.13	359.65	11944.04	-64.65	-57.61	1152.49	10.00	372201.39	718970.44	N 32 1 16.78	W 103 37 36.51
	12200.00	51.13	359.65	12013.25	7.35	14.38	1152.05	10.00	372273.38	718970.01	N 32 1 17.49	W 103 37 36.51
Wolfcamp A Target 1	*12282.63*	*59.39*	*359.65*	*12060.30*	*75.19*	*82.23*	*1151.64*	*10.00*	*372341.22*	*718969.59*	*N 32 1 18.16*	*W 103 37 36.51*
	12300.00	61.13	359.65	12068.92	90.27	97.31	1151.55	10.00	372356.30	718969.50	N 32 1 18.31	W 103 37 36.51
Wolfcamp A Target 2	*12381.34*	*69.26*	*359.65*	*12103.01*	*164.05*	*171.08*	*1151.10*	*10.00*	*372430.07*	*718969.05*	*N 32 1 19.04*	*W 103 37 36.51*
	12400.00	71.13	359.65	12109.33	181.60	188.64	1150.99	10.00	372447.63	718968.94	N 32 1 19.22	W 103 37 36.51
	12500.00	81.13	359.65	12133.27	278.56	285.59	1150.40	10.00	372544.58	718968.35	N 32 1 20.18	W 103 37 36.51
Landing Point	12582.60	89.39	359.65	12140.10	360.81	367.84	1149.90	10.00	372626.82	718967.85	N 32 1 20.99	W 103 37 36.51
	12600.00	89.39	359.65	12140.28	378.21	385.24	1149.79	0.00	372644.22	718967.75	N 32 1 21.16	W 103 37 36.51
	12700.00	89.39	359.65	12141.35	478.20	485.23	1149.18	0.00	372744.21	718967.14	N 32 1 22.15	W 103 37 36.51
	12800.00	89.39	359.65	12142.41	578.20	585.22	1148.57	0.00	372844.20	718966.53	N 32 1 23.14	W 103 37 36.51
	12900.00	89.39	359.65	12143.48	678.19	685.22	1147.96	0.00	372944.19	718965.92	N 32 1 24.13	W 103 37 36.51
	13000.00	89.39	359.65	12144.55	778.18	785.21	1147.36	0.00	373044.18	718965.31	N 32 1 25.12	W 103 37 36.51
	13100.00	89.39	359.65	12145.61	878.18	885.20	1146.75	0.00	373144.17	718964.70	N 32 1 26.11	W 103 37 36.51
	13200.00	89.39	359.65	12146.68	978.17	985.19	1146.14	0.00	373244.15	718964.09	N 32 1 27.10	W 103 37 36.51
	13300.00	89.39	359.65	12147.75	1078.17	1085.18	1145.53	0.00	373344.14	718963.48	N 32 1 28.09	W 103 37 36.51
	13400.00	89.39	359.65	12148.81	1178.16	1185.18	1144.92	0.00	373444.13	718962.87	N 32 1 29.08	W 103 37 36.51
	13500.00	89.39	359.65	12149.88	1278.16	1285.17	1144.31	0.00	373544.12	718962.27	N 32 1 30.07	W 103 37 36.51
	13600.00	89.39	359.65	12150.94	1378.15	1385.16	1143.70	0.00	373644.11	718961.66	N 32 1 31.06	W 103 37 36.51
	13700.00	89.39	359.65	12152.01	1478.14	1485.15	1143.09	0.00	373744.10	718961.05	N 32 1 32.05	W 103 37 36.51
	13800.00	89.39	359.65	12153.08	1578.14	1585.15	1142.48	0.00	373844.09	718960.44	N 32 1 33.04	W 103 37 36.50
	13900.00	89.39	359.65	12154.14	1678.13	1685.14	1141.87	0.00	373944.07	718959.83	N 32 1 34.03	W 103 37 36.50
	14000.00	89.39	359.65	12155.21	1778.13	1785.13	1141.26	0.00	374044.06	718959.22	N 32 1 35.02	W 103 37 36.50
	14100.00	89.39	359.65	12156.28	1878.12	1885.12	1140.66	0.00	374144.05	718958.61	N 32 1 36.01	W 103 37 36.50
	14200.00	89.39	359.65	12157.34	1978.12	1985.12	1140.05	0.00	374244.04	718958.00	N 32 1 36.99	W 103 37 36.50
	14300.00	89.39	359.65	12158.41	2078.11	2085.11	1139.44	0.00	374344.03	718957.39	N 32 1 37.98	W 103 37 36.50
	14400.00	89.39	359.65	12159.48	2178.10	2185.10	1138.83	0.00	374444.02	718956.78	N 32 1 38.97	W 103 37 36.50
	14500.00	89.39	359.65	12160.54	2278.10	2285.09	1138.22	0.00	374544.01	718956.18	N 32 1 39.96	W 103 37 36.50
	14600.00	89.39	359.65	12161.61	2378.09	2385.09	1137.61	0.00	374643.99	718955.57	N 32 1 40.95	W 103 37 36.50
IFP1, Build 2°/100ft	14693.02	89.39	359.65	12162.60	2471.10	2478.10	1137.04	0.00	374737.00	718955.00	N 32 1 41.87	W 103 37 36.50
	14700.00	89.53	359.65	12162.67	2478.09	2485.08	1137.00	2.00	374743.98	718954.96	N 32 1 41.94	W 103 37 36.50
Hold	14739.24	90.31	359.65	12162.72	2517.33	2524.32	1136.76	2.00	374783.23	718954.72	N 32 1 42.33	W 103 37 36.50
	14800.00	90.31	359.65	12162.39	2578.09	2585.08	1136.39	0.00	374843.98	718954.35	N 32 1 42.93	W 103 37 36.50
	14900.00	90.31	359.65	12161.84	2678.08	2685.07	1135.78	0.00	374943.97	718953.74	N 32 1 43.92	W 103 37 36.50
	15000.00	90.31	359.65	12161.29	2778.08	2785.07	1135.17	0.00	375043.96	718953.13	N 32 1 44.91	W 103 37 36.50
	15100.00	90.31	359.65	12160.75	2878.08	2885.07	1134.56	0.00	375143.95	718952.52	N 32 1 45.90	W 103 37 36.50
	15200.00	90.31	359.65	12160.20	2978.08	2985.06	1133.95	0.00	375243.95	718951.91	N 32 1 46.89	W 103 37 36.50
	15300.00	90.31	359.65	12159.65	3078.08	3085.06	1133.34	0.00	375343.94	718951.30	N 32 1 47.88	W 103 37 36.50
	15400.00	90.31	359.65	12159.10	3178.08	3185.06	1132.74	0.00	375443.93	718950.69	N 32 1 48.87	W 103 37 36.50
	15500.00	90.31	359.65	12158.56	3278.08	3285.05	1132.13	0.00	375543.93	718950.08	N 32 1 49.86	W 103 37 36.50
	15600.00	90.31	359.65	12158.01	3378.07	3385.05	1131.52	0.00	375643.92	718949.47	N 32 1 50.85	W 103 37 36.50
	15700.00	90.31	359.65	12157.46	3478.07	3485.05	1130.91	0.00	375743.91	718948.86	N 32 1 51.84	W 103 37 36.49
	15800.00	90.31	359.65	12156.91	3578.07	3585.04	1130.30	0.00	375843.90	718948.25	N 32 1 52.83	W 103 37 36.49
	15900.00	90.31	359.65	12156.37	3678.07	3685.04	1129.69	0.00	375943.90	718947.65	N 32 1 53.82	W 103 37 36.49
	16000.00	90.31	359.65	12155.82	3778.07	3785.04	1129.08	0.00	376043.89	718947.04	N 32 1 54.81	W 103 37 36.49
	16100.00	90.31	359.65	12155.27	3878.07	3885.03	1128.47	0.00	376143.88	718946.43	N 32 1 55.80	W 103 37 36.49
	16200.00	90.31	359.65	12154.73	3978.07	3985.03	1127.86	0.00	376243.88	718945.82	N 32 1 56.79	W 103 37 36.49
	16300.00	90.31	359.65	12154.18	4078.06	4085.03	1127.25	0.00	376343.87	718945.21	N 32 1 57.78	W 103 37 36.49
	16400.00	90.31	359.65	12153.63	4178.06	4185.02	1126.64	0.00	376443.86	718944.60	N 32 1 58.77	W 103 37 36.49
	16500.00	90.31	359.65	12153.08	4278.06	4285.02	1126.03	0.00	376543.85	718943.99	N 32 1 59.75	W 103 37 36.49

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	16600.00	90.31	359.65	12152.54	4378.06	4385.02	1125.42	0.00	376643.85	718943.38	N 32 2 0.74	W 103 37 36.49
	16700.00	90.31	359.65	12151.99	4478.06	4485.01	1124.81	0.00	376743.84	718942.77	N 32 2 1.73	W 103 37 36.49
	16800.00	90.31	359.65	12151.44	4578.06	4585.01	1124.20	0.00	376843.83	718942.16	N 32 2 2.72	W 103 37 36.49
	16900.00	90.31	359.65	12150.89	4678.05	4685.01	1123.59	0.00	376943.83	718941.55	N 32 2 3.71	W 103 37 36.49
	17000.00	90.31	359.65	12150.35	4778.05	4785.00	1122.99	0.00	377043.82	718940.94	N 32 2 4.70	W 103 37 36.49
	17100.00	90.31	359.65	12149.80	4878.05	4885.00	1122.38	0.00	377143.81	718940.33	N 32 2 5.69	W 103 37 36.49
	17200.00	90.31	359.65	12149.25	4978.05	4985.00	1121.77	0.00	377243.80	718939.72	N 32 2 6.68	W 103 37 36.49
	17300.00	90.31	359.65	12148.71	5078.05	5084.99	1121.16	0.00	377343.80	718939.11	N 32 2 7.67	W 103 37 36.49
MP, Build 2°/100ft	17319.21	90.31	359.65	12148.60	5097.25	5104.20	1121.04	0.00	377363.00	718939.00	N 32 2 7.86	W 103 37 36.49
Hold	17321.98	90.26	359.65	12148.59	5100.03	5106.97	1121.02	2.00	377365.78	718938.98	N 32 2 7.89	W 103 37 36.49
	17400.00	90.26	359.65	12148.23	5178.05	5184.99	1120.55	0.00	377443.79	718938.50	N 32 2 8.66	W 103 37 36.49
	17500.00	90.26	359.65	12147.78	5278.05	5284.99	1119.94	0.00	377543.78	718937.89	N 32 2 9.65	W 103 37 36.49
	17600.00	90.26	359.65	12147.33	5378.05	5384.98	1119.33	0.00	377643.78	718937.28	N 32 2 10.64	W 103 37 36.49
	17700.00	90.26	359.65	12146.88	5478.04	5484.98	1118.72	0.00	377743.77	718936.67	N 32 2 11.63	W 103 37 36.48
	17800.00	90.26	359.65	12146.43	5578.04	5584.98	1118.11	0.00	377843.76	718936.06	N 32 2 12.62	W 103 37 36.48
	17900.00	90.26	359.65	12145.98	5678.04	5684.98	1117.50	0.00	377943.76	718935.45	N 32 2 13.61	W 103 37 36.48
	18000.00	90.26	359.65	12145.53	5778.04	5784.97	1116.89	0.00	378043.75	718934.84	N 32 2 14.60	W 103 37 36.48
	18100.00	90.26	359.65	12145.08	5878.04	5884.97	1116.28	0.00	378143.74	718934.23	N 32 2 15.59	W 103 37 36.48
	18200.00	90.26	359.65	12144.63	5978.04	5984.97	1115.67	0.00	378243.74	718933.62	N 32 2 16.58	W 103 37 36.48
	18300.00	90.26	359.65	12144.18	6078.04	6084.96	1115.06	0.00	378343.73	718933.01	N 32 2 17.57	W 103 37 36.48
	18400.00	90.26	359.65	12143.73	6178.04	6184.96	1114.45	0.00	378443.72	718932.40	N 32 2 18.56	W 103 37 36.48
	18500.00	90.26	359.65	12143.28	6278.04	6284.96	1113.84	0.00	378543.72	718931.79	N 32 2 19.55	W 103 37 36.48
	18600.00	90.26	359.65	12142.83	6378.04	6384.95	1113.23	0.00	378643.71	718931.18	N 32 2 20.54	W 103 37 36.48
	18700.00	90.26	359.65	12142.38	6478.03	6484.95	1112.62	0.00	378743.70	718930.58	N 32 2 21.52	W 103 37 36.48
	18800.00	90.26	359.65	12141.93	6578.03	6584.95	1112.01	0.00	378843.70	718929.97	N 32 2 22.51	W 103 37 36.48
	18900.00	90.26	359.65	12141.48	6678.03	6684.95	1111.40	0.00	378943.69	718929.36	N 32 2 23.50	W 103 37 36.48
	19000.00	90.26	359.65	12141.03	6778.03	6784.94	1110.79	0.00	379043.68	718928.75	N 32 2 24.49	W 103 37 36.48
	19100.00	90.26	359.65	12140.58	6878.03	6884.94	1110.18	0.00	379143.68	718928.14	N 32 2 25.48	W 103 37 36.48
	19200.00	90.26	359.65	12140.13	6978.03	6984.94	1109.57	0.00	379243.67	718927.53	N 32 2 26.47	W 103 37 36.48
	19300.00	90.26	359.65	12139.68	7078.03	7084.93	1108.96	0.00	379343.66	718926.92	N 32 2 27.46	W 103 37 36.48
	19400.00	90.26	359.65	12139.23	7178.03	7184.93	1108.35	0.00	379443.65	718926.31	N 32 2 28.45	W 103 37 36.48
	19500.00	90.26	359.65	12138.78	7278.03	7284.93	1107.74	0.00	379543.65	718925.70	N 32 2 29.44	W 103 37 36.48
	19600.00	90.26	359.65	12138.33	7378.03	7384.93	1107.13	0.00	379643.64	718925.09	N 32 2 30.43	W 103 37 36.47
	19700.00	90.26	359.65	12137.88	7478.02	7484.92	1106.52	0.00	379743.63	718924.48	N 32 2 31.42	W 103 37 36.47
	19800.00	90.26	359.65	12137.43	7578.02	7584.92	1105.91	0.00	379843.63	718923.87	N 32 2 32.41	W 103 37 36.47
	19900.00	90.26	359.65	12136.97	7678.02	7684.92	1105.30	0.00	379943.62	718923.26	N 32 2 33.40	W 103 37 36.47
	20000.00	90.26	359.65	12136.52	7778.02	7784.91	1104.69	0.00	380043.61	718922.65	N 32 2 34.39	W 103 37 36.47
	20100.00	90.26	359.65	12136.07	7878.02	7884.91	1104.08	0.00	380143.61	718922.04	N 32 2 35.38	W 103 37 36.47
	20200.00	90.26	359.65	12135.62	7978.02	7984.91	1103.47	0.00	380243.60	718921.43	N 32 2 36.37	W 103 37 36.47
	20300.00	90.26	359.65	12135.17	8078.02	8084.91	1102.86	0.00	380343.59	718920.82	N 32 2 37.36	W 103 37 36.47
	20400.00	90.26	359.65	12134.72	8178.02	8184.90	1102.25	0.00	380443.59	718920.21	N 32 2 38.35	W 103 37 36.47
	20500.00	90.26	359.65	12134.27	8278.02	8284.90	1101.64	0.00	380543.58	718919.60	N 32 2 39.34	W 103 37 36.47
	20600.00	90.26	359.65	12133.82	8378.02	8384.90	1101.03	0.00	380643.57	718918.99	N 32 2 40.33	W 103 37 36.47
	20700.00	90.26	359.65	12133.37	8478.01	8484.89	1100.42	0.00	380743.57	718918.38	N 32 2 41.32	W 103 37 36.47
	20800.00	90.26	359.65	12132.92	8578.01	8584.89	1099.81	0.00	380843.56	718917.77	N 32 2 42.31	W 103 37 36.47
	20900.00	90.26	359.65	12132.47	8678.01	8684.89	1099.20	0.00	380943.55	718917.16	N 32 2 43.30	W 103 37 36.47
	21000.00	90.26	359.65	12132.02	8778.01	8784.89	1098.59	0.00	381043.55	718916.55	N 32 2 44.28	W 103 37 36.47
	21100.00	90.26	359.65	12131.57	8878.01	8884.88	1097.98	0.00	381143.54	718915.94	N 32 2 45.27	W 103 37 36.47
	21200.00	90.26	359.65	12131.12	8978.01	8984.88	1097.37	0.00	381243.53	718915.33	N 32 2 46.26	W 103 37 36.47
	21300.00	90.26	359.65	12130.67	9078.01	9084.88	1096.76	0.00	381343.53	718914.72	N 32 2 47.25	W 103 37 36.47
	21400.00	90.26	359.65	12130.22	9178.01	9184.87	1096.15	0.00	381443.52	718914.11	N 32 2 48.24	W 103 37 36.47
	21500.00	90.26	359.65	12129.77	9278.01	9284.87	1095.54	0.00	381543.51	718913.50	N 32 2 49.23	W 103 37 36.46
	21600.00	90.26	359.65	12129.32	9378.01	9384.87	1094.93	0.00	381643.51	718912.89	N 32 2 50.22	W 103 37 36.46
	21700.00	90.26	359.65	12128.87	9478.00	9484.87	1094.32	0.00	381743.50	718912.28	N 32 2 51.21	W 103 37 36.46
	21800.00	90.26	359.65	12128.42	9578.00	9584.86	1093.71	0.00	381843.49	718911.67	N 32 2 52.20	W 103 37 36.46
	21900.00	90.26	359.65	12127.97	9678.00	9684.86	1093.10	0.00	381943.49	718911.06	N 32 2 53.19	W 103 37 36.46
	22000.00	90.26	359.65	12127.52	9778.00	9784.86	1092.49	0.00	382043.48	718910.45	N 32 2 54.18	W 103 37 36.46
	22100.00	90.26	359.65	12127.07	9878.00	9884.85	1091.88	0.00	382143.47	718909.84	N 32 2 55.17	W 103 37 36.46
	22200.00	90.26	359.65	12126.62	9978.00	9984.85	1091.27	0.00	382243.47	718909.23	N 32 2 56.16	W 103 37 36.46
	22300.00	90.26	359.65	12126.17	10078.00	10084.85	1090.66	0.00	382343.46	718908.62	N 32 2 57.15	W 103 37 36.46
	22400.00	90.26	359.65	12125.72	10178.00	10184.85	1090.05	0.00	382443.45	718908.01	N 32 2 58.14	W 103 37 36.46
	22500.00	90.26	359.65	12125.26	10278.00	10284.84	1089.44	0.00	382543.45	718907.40	N 32 2 59.13	W 103 37 36.46
LTP Cross	*22572.76*	*90.26*	*359.65*	*12124.94*	*10350.75*	*10357.60*	*1089.00*	*0.00*	*382616.20*	*718906.95*	*N 32 2 59.85*	*W 103 37 36.46*
	22600.00	90.26	359.65	12124.81	10377.99	10384.84	1088.83	0.00	382643.44	718906.79	N 32 3 0.12	W 103 37 36.46
SD 24 13 Fed P415 15H - PBHL	22647.56	90.26	359.65	12124.60	10425.56	10432.40	1088.54	0.00	382691.00	718906.50	N 32 3 0.59	W 103 37 36.46

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 3 *** 3-D 97.071% Confidence 3.0000 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	32.600	1/100.000	30.000	30.000		B001Mb_MWD+HRGM-Depth Only	SD 24 13 Fed P415 15H / Chevron SD 24 13 Fed P415 15H Rev0 jjb 02Aug19
	1	32.600	22647.564	1/100.000	30.000	30.000		B001Mb_MWD+HRGM	SD 24 13 Fed P415 15H / Chevron SD 24 13 Fed P415 15H

Delaware Basin
Changes to APD / COA for Federal Well

Well Names:

Well Name		API #
SD 24 13 Fed P415	13H	
SD 24 13 Fed P415	14H	
SD 24 13 Fed P415	15H	
SD 24 13 Fed P415	16H	

Rig: Nabors X30

CVX CONTACT:

CODY LEATHERS
CHEVRON D&C ENGINEER
1400 SMITH ST, HOUSTON, TX
MOBILE: 832.523.6837
OFFICE: 713.372.8263
CODYLEATHERS@CHEVRON.COM

Summary of Changes to APD Submission

Chevron respectfully request to vary from the Onshore Order 2 where it states:

"(A full BOP Test) shall be performed: when initially installed and whenever any seal subject to test pressure is broken."

We propose to perform a "break test" on the BOP when able to finish the next hole section within 21 days of the previous full BOP test. Upon the first nipple up of the pad a full BOP test will be performed. The break test will consist of a 250 psi low / ≥ 5,000 psi high (10 min ea.) test against the connection that was broken when skidding the rig (between the BOP and the wellhead). Time between full BOP tests will never surpass 21 days. A break test will not be performed on our last production hole section. A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized.

See figure below where skid sequence shows all possible skids between wells where break test may occur.

Drilling Sequence & Slot Designation (West to East)

	SD 23 14 Fed P415			
	13H	14H	15H	16H
Surface	Drilled by surface rig			
Intermediate 1	1	3	5	7
Intermediate 2 Liner	2	4	6	8
Pilot Hole				
Production	12	11	10	9

Chevron U.S.A. Inc. (CUSA)
SUNDRY ATTACHMENT: SPUDDER RIG

DATA OPERATOR NAME: Chevron U.S.A. Inc.

1. SUMMARY OF REQUEST:

CUSA respectfully requests approval for the following operations for the surface hole in the drill plan:

1. Utilize a spudder rig to pre-set surface casing for time and cost savings.

2. Description of Operations

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
   - **a.** After drilling the surface hole section, the spudder rig will run casing and cement following all the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
   - **b.** The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.

2. The wellhead will be installed and then tested offline after the WOC time has been reached.

3. An abandonment cap at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on one wing-valve.
   - **a.** A means for intervention will be maintained while the drilling rig is not over the well.

4. Spudder rig operations are expected to take 2-3 days per well on the pad.

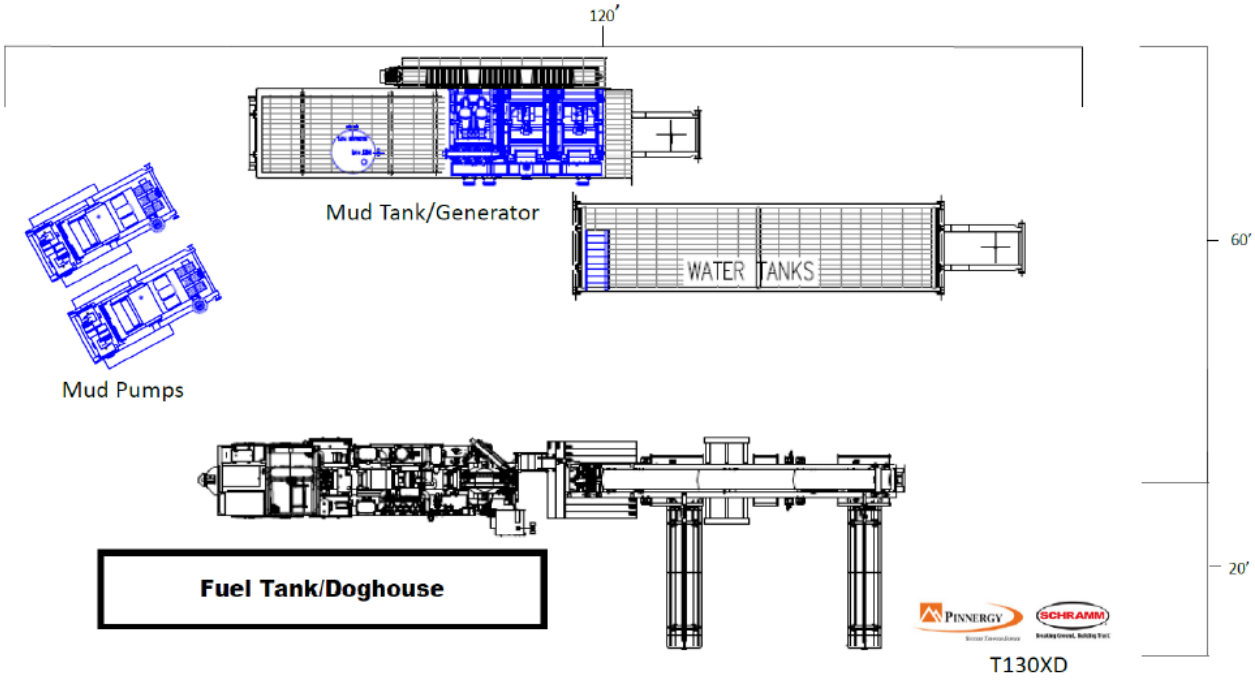
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.

6. Drilling operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
   - **a.** The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
   - **b.** The BLM will be contacted / notified 24 hours before the larger rig moves back on the pre-set locations.

7. CUSA will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.

8. Once the rig is removed, CUSA will secure the wellhead area by placing a guard rail around the cellar area.

Surface Rig Layout



6. **MUD PROGRAM**

From	To	TVD Top	TVD Btm	Type	Weight	F. Vis	Filtrate
0'	850'	0'	850'	Spud Mud	8.3-8.7	32 - 34	NC - NC
850'	4650'	850'	4,590'	Brine	9.4-10.6	28 - 30	25-30
4650'	10,930'	4,590'	10,811'	Cut Brine	8.8-10.0	70 - 75	25-30
10,930'	22,647'	10,811'	12,124'	Oil Based Mud	12.0-14.8	70 - 75	25-30

A closed system will by utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill.

All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

7. **TESTING, LOGGING, AND CORING**

The anticipated type and amount of testing, logging, and coring are as follows:

a. Drill stem tests are not planned.
b. The logging program will be as follows:

TYPE	Logs	Interval	Timing	Vendor
Mudlogs	2 man mudlog	Int Csg to TD	Drillout of Int Csg	TBD
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling	TBD

c. Conventional whole core samples are not planned.
d. A Directional Survey will be run.

8. **ABNORMAL PRESSURES AND HYDROGEN SULFIDE**

a. No abnormal pressures or temperatures are expected. Estimated BHP at intermediate TD is: 5750 psi
No abnormal pressures or temperatures are expected. Estimated BHP at production TD is: 8650 psi
b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
06/16/2020

APD ID: 10400050025
Submission Date: 10/24/2019
Operator Name: CHEVRON USA INCORPORATED
Well Name: SD 24 13 FED P415
Well Number: 15H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
570949	RUSTLER	3134	601	601	DOLOMITE	USEABLE WATER	N
570950	CASTILE	225	2909	2909	ANHYDRITE	NONE	N
570951	LAMAR	-1458	4592	4592	LIMESTONE	NONE	N
570952	BELL CANYON	-1492	4626	4626	SANDSTONE	NONE	N
570953	CHERRY CANYON	-2524	5658	5658	SANDSTONE	NONE	N
570954	BRUSHY CANYON	-4122	7256	7256	SANDSTONE	NATURAL GAS, OIL	N
570955	BONE SPRING	-5669	8803	8803	LIMESTONE	NATURAL GAS, OIL	N
570956	UPPER AVALON SHALE	-5723	8857	8857	LIMESTONE, SHALE	NATURAL GAS, OIL	N
570957	BONE SPRING 1ST	-6569	9703	9703	SANDSTONE	NATURAL GAS, OIL	N
570958	BONE SPRING 2ND	-7187	10321	10321	SANDSTONE	NATURAL GAS, OIL	N
570960	BONE SPRING 3RD	-8344	11478	11478	SANDSTONE	NATURAL GAS, OIL	N
570963	WOLFCAMP	-8990	12124	22647	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M
Rating Depth: 12124

Equipment: Will have a minimum of a 10000 psi rig stack for drill out below surface (Wolfcamp is not exposed until drillout of the intermediate casing). Could possibly utilize the 5000 psi rig stack for drill out below surface casing due to the availabity of 10M annular. (Wolfcamp is not exposed until drillout of the intermediate casing). Stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place.
Requesting Variance? YES

Variance request: Chevron requests a variance to use a FMC UH-S Multibowl wellhead, which will be run through the rig foor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC and BOP test information will be provided in a

Delaware Basin
Changes to APD for Federal Well

CHEVRON CONTACT:

TONY BACON
DRILLING ENGINEER
1400 SMITH ST.
HOUSTON, TX 77002

DESK: HOU140/43-014
CELL: 406-989-0415
EMAIL: TONYBACON@CHEVRON.COM

Summary of Changes to MPD Submission

BOP Equipment – CoFlex Hose (Section 3 of 9 Point Drilling Plan in MPD)

BOP Equipment – CoFlex Hose

Summary: Variance to use a CoFlex hose between BOP and choke manifold not requested in original submittal.

As Defined in MPD:	As Planned on Well:
Variance to use CoFlex hose not requested.	Chevron requests a variance to use a CoFlex hose with a metal protective covering that will be utilized between the BOP and Choke manifold. Please refer to the attached testing and specification documents.

CONTITECH RUBBER Industrial Kft.	No:QC-DB- 231/ 2014
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Continental

ContiTech

Hose Data Sheet

CRI Order No.	538332
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500412631 CBC544771, CBC544769, CBC544767, CBC544763, CBC544768, CBC544745, CBC544744, CBC544746
Item No.	1
Hose Type	Flexible Hose
Standard	**API SPEC 16 C**
Inside dia in inches	3
Length	45 ft
Type of coupling one end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE SOURC/W BX155 ST/ST INLAID R.GR.
Type of coupling other end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE SOUR C/W BX155 ST/ST INLAID R.GR.
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	Yes
Lifting collar	Yes
Element C	Yes
Safety chain	Yes
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

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Continental

ContiTech

CONTITECH RUBBER Industrial Kft.	No:QC-DB- 231/ 2014
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QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°:	594	
PURCHASER:	ContiTech Oil & Marine Corp.			P.O. N°:	4500412631	
CONTITECH ORDER N°:	538332	HOSE TYPE:	3" ID	Choke & Kill Hose		
HOSE SERIAL N°:	67349	NOMINAL / ACTUAL LENGTH:		13,72 m / 13,85 m		
W.P. 68,9 MPa	10000 psi	T.P. 103,4 MPa	15000 psi	Duration:	60	min.

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.

→ 10 mm = 25 MPa

COUPLINGS Type	Serial N°		Quality	Heat N°
3" coupling with	1435	1436	AISI 4130	A1258U
4 1/16" 10K API Swivel Flange end			AISI 4130	034939
Hub			AISI 4130	A1045N

Not Designed For Well Testing **API Spec 16 C**

Tag No.: 66 – 1198 **Temperature rate:"B"**

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

Date:	Inspector	Quality Control
03. April 2014.		ContiTech Rubber Industrial Kft. Quality Control Dept. (1)

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE *No: 594, 596, 597*

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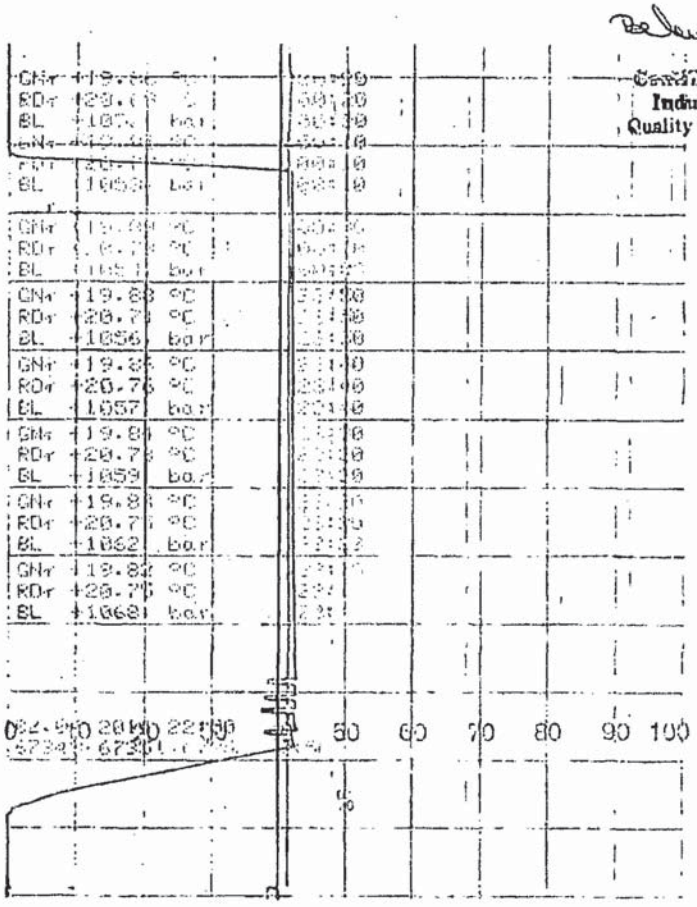
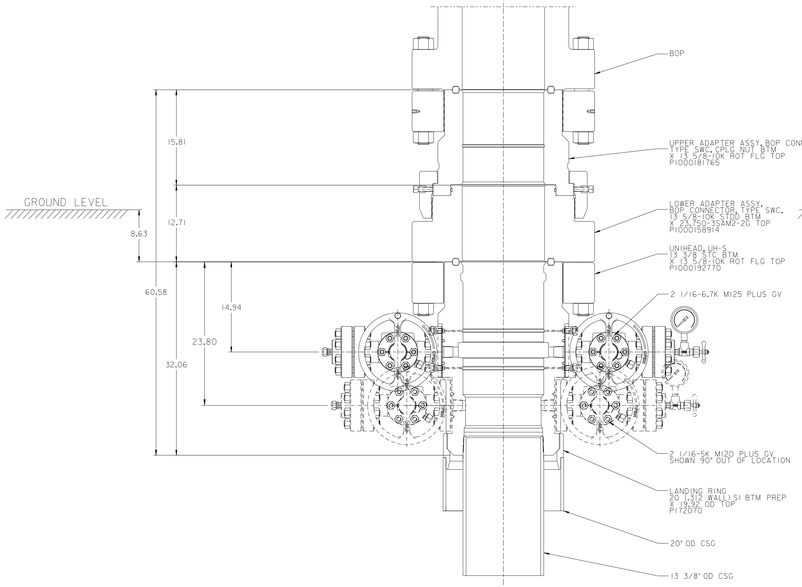
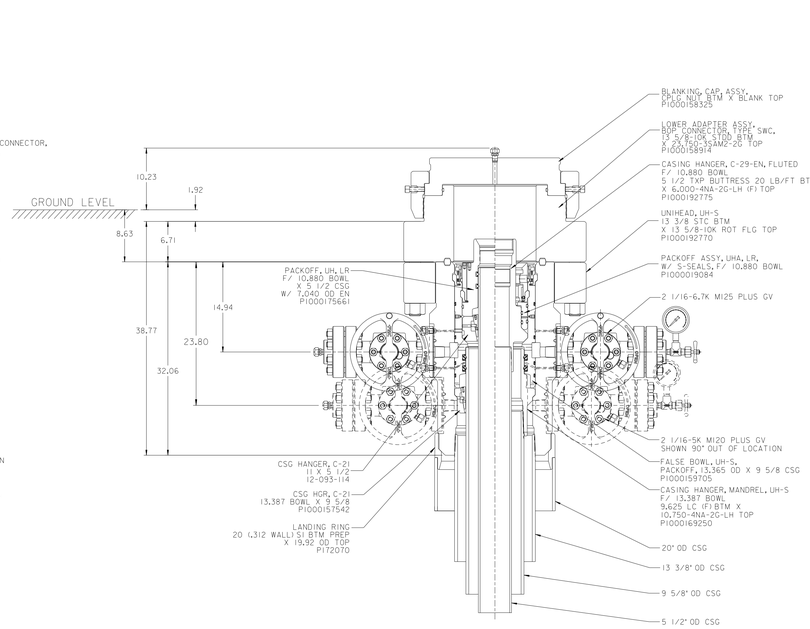


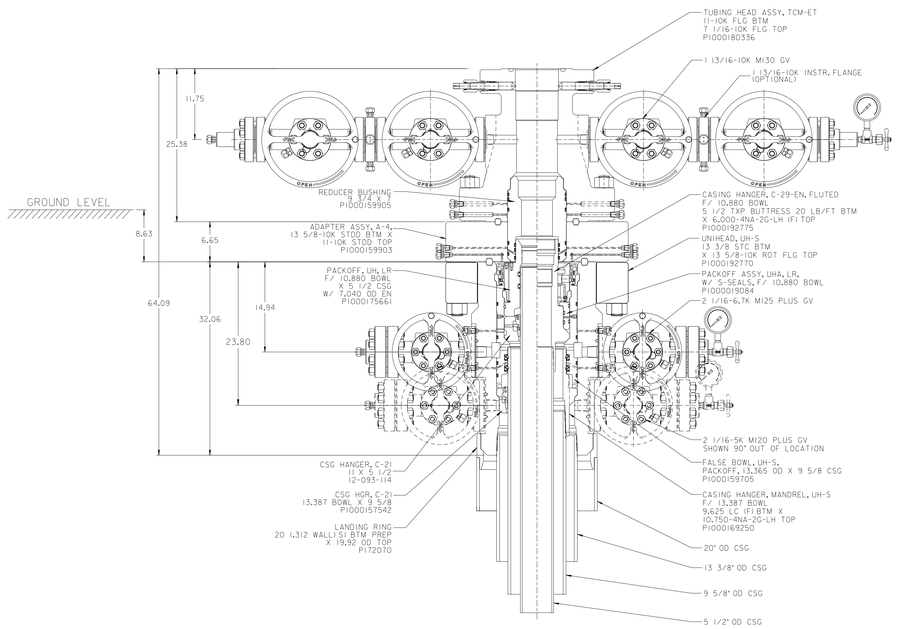
CentiTech Rubber
Industrial Kit.
Quality Control Dept.
(1)



DRILLING MODE



CAPPING MODE



COMPLETION MODE

6650 PSI UH-S W/ SWC

CHEVRON

20 X 13 3/8 X 9 5/8 X 5 1/2

QUOTE 20395972
F110262
DBD1043378
SEG DWGs DM100262890
REFs DM100220685
DM100219485

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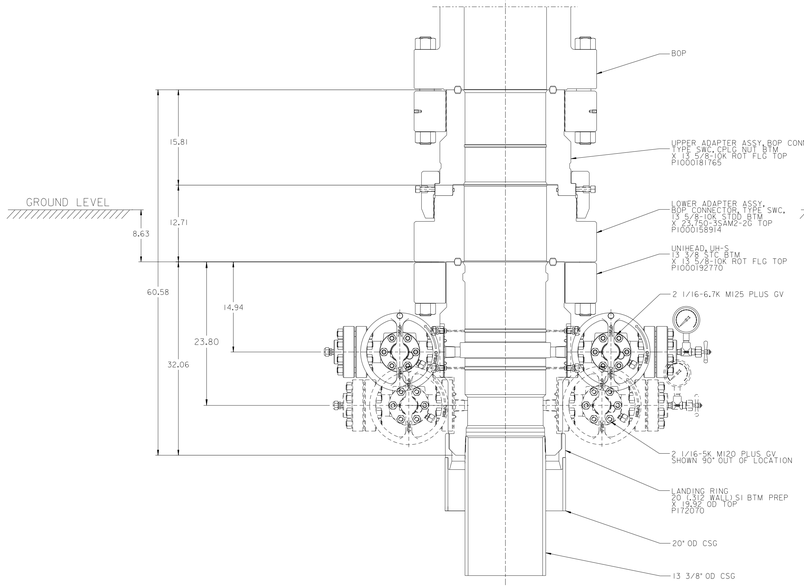
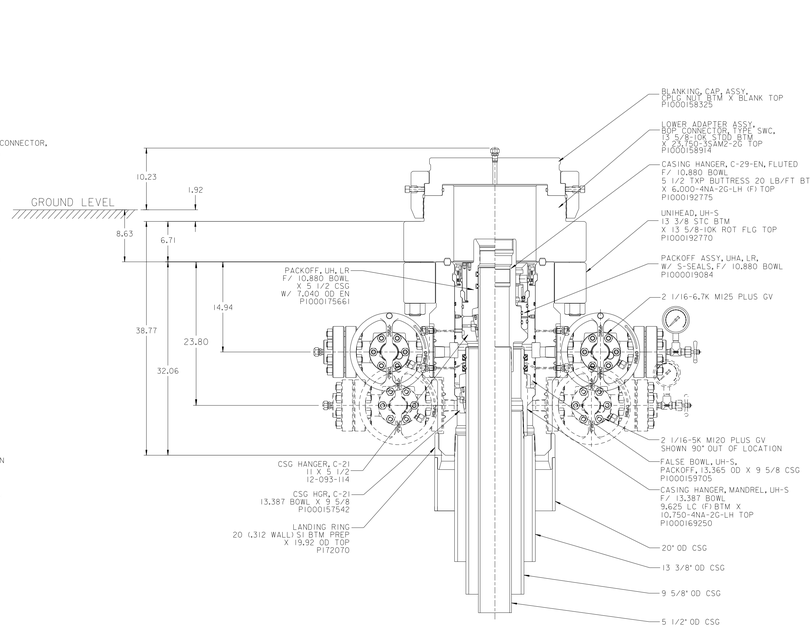
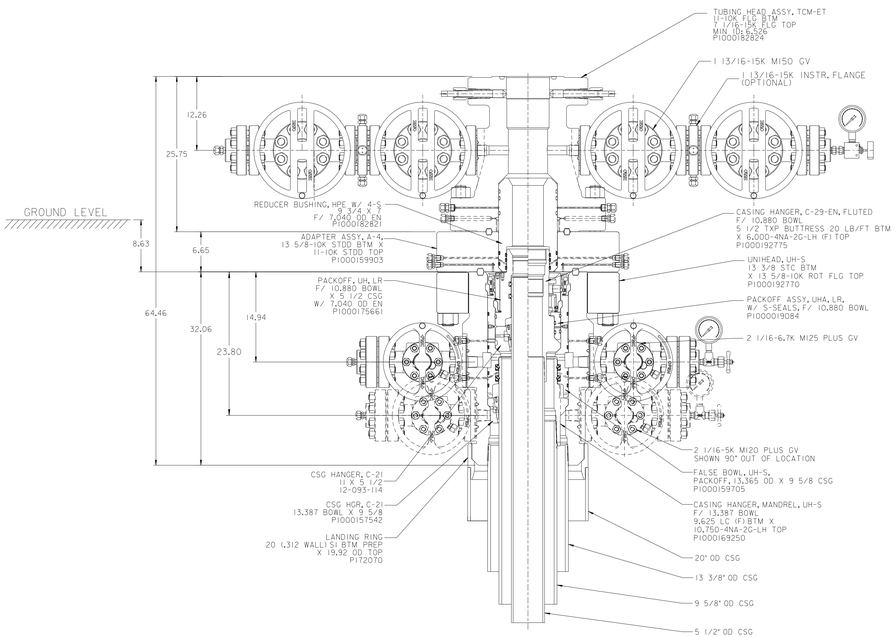
		DRAFTING CHECK: Z. MARQUEZ	DATE: 02-09-18	
		DESIGN REVIEW: C. MCNELIS	DATE: 02-09-18	SHEET SIZE B
		MANUFACTURING APPROVAL:	DATE:	ECN NUMBER REV.
		APPROVED BY: G.SCOTT	DATE: 02-09-18	DRAWING NUMBER DM100277519 SHEET 1/3



DRILLING MODE



CAPPING MODE



COMPLETION MODE

6650 PSI UH-S W/ SWC

CHEVRON

20 X 13 3/8 X 9 5/8 X 5 1/2

QUOTE 20395972
F110262
DBD10143378
SEG DWGs DM100262890
REFs DM100220685
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		DRAFTING CHECK: Z. MARQUEZ	DATE: 02-09-18	
		DESIGN REVIEW: C. MCNELIS	DATE: 02-09-18	SHEET SIZE:
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		APPROVED BY: G.SCOTT	DATE: 02-09-18	DRAWING NUMBER: DM100277519 SHEET 2/3

BLOWOUT PREVENTOR SCHEMATIC

Minimum Requirements

OPERATION :Intermediate Hole Section

Minimum System Pressure Rating : 5,000 psi

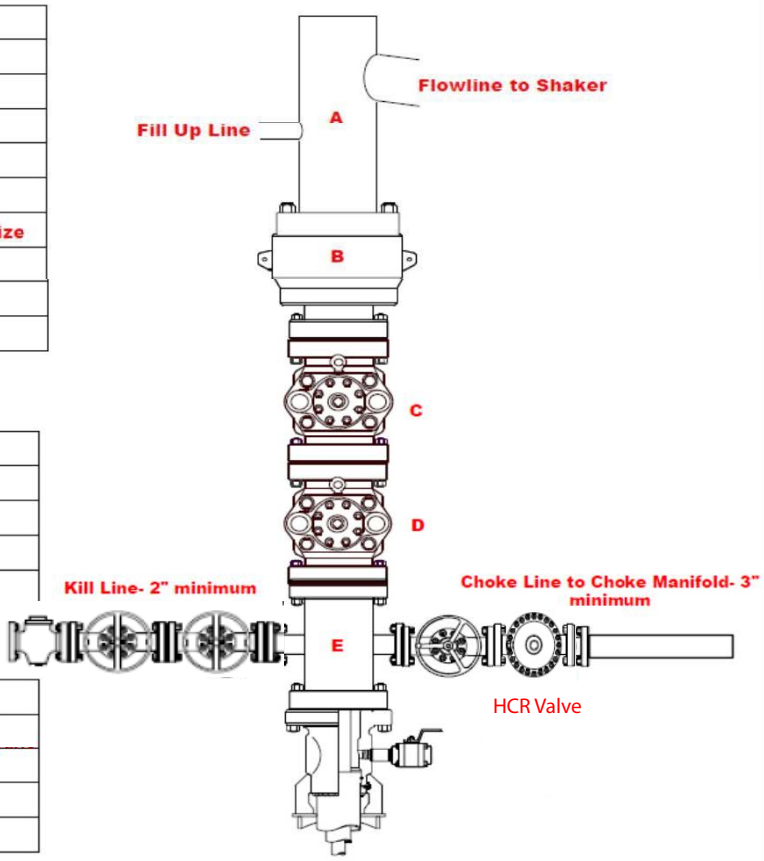
	SIZE	PRESSURE	DESCRIPTION
A		N/A	Bell Nipple
B	13 5/8"	5,000 psi	Annular
C	13 5/8"	5,000 psi	Pipe Ram
D	13 5/8"	5,000 psi	Blind Ram
E	13 5/8"	5,000 psi	Mud Cross
F			
DSA		As required for each hole size	
C-Sec			
B-Sec		13-5/8" 5K x 11" 5K	
A-Sec		13-3/8" SOW x 13-5/8" 5K	

Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	5,000 psi	Gate Valve
2"	5,000 psi	Gate Valve
2"	5,000 psi	Check Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
3"	5,000 psi	Gate Valve
3"	5,000 psi	HCR Valve



Installation Checklist

The following item must be verified and checked off prior to pressure testing of BOP equipment.

- ☐ **The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.**
- ☐ **All valves on the kill line and choke line will be full opening and will allow straight though flow.**
- ☐ **The kill line and choke line will be straight unless turns use tee blocks or are targeted with running tess, and will be anchored to prevent whip and reduce vibration.**
- ☐ **Manual (hand wheels) or automatic locking devices will be installed on all ram preventers. Hand wheels will also be installed on all manual valves on the choke line and kill line.**
- ☐ **A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will remain open unless accumulator is inoperative.**
- ☐ **Upper kelly cock valve with handle will be available on rig floor along with safety valve and subs to fit all drill string connections in use.**

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer

Wellname: _____

Representative: _____

Date: _____

CHOKE MANIFOLD SCHEMATIC

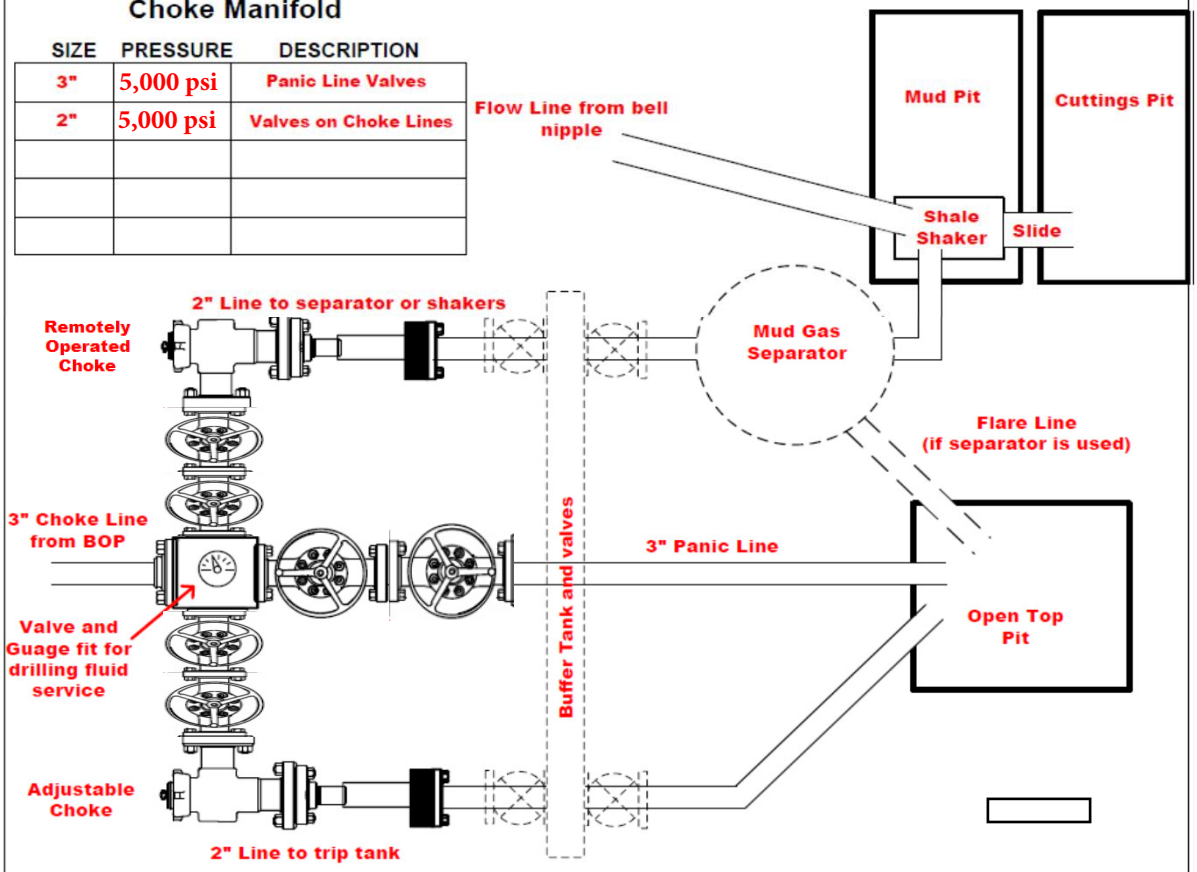
Minimum Requirements

OPERATION : Intermediate Hole Section

Minimum System Pressure Rating : 5,000 psi

Choke Manifold

SIZE	PRESSURE	DESCRIPTION
3"	5,000 psi	Panic Line Valves
2"	5,000 psi	Valves on Choke Lines



Installation Checklist

The following item must be verified and checked off prior to pressure testing of BOP equipment.

- ☐ The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.
- ☐ Adjustable Chokes may be Remotely Operated but will have backup hand pump for hydraulic actuation in case of loss of rig air pressure or power.
- ☐ Flare and Panic lines will terminate a minimum of 150' from the wellhead. These lines will terminate at a location as per approved APD.
- ☐ The choke line, kill line, and choke manifold lines will be straight unless turns use tee blocks or are targeted with running tess, and will be anchored to prevent whip and reduce vibration. This excludes the line between mud gas separator and shale shaker.
- ☐ All valves (except chokes) on choke line, kill line, and choke manifold will be full opening and will allow straight through flow. This excludes any valves between mud gas separator and shale shakers.
- ☐ All manual valves will have hand wheels installed.
- ☐ If used, flare system will have effective method for ignition
- ☐ All connections will be flanged, welded, or clamped (no threaded connections like hammer unions)
- ☐ If buffer tank is used, a valve will be used on all lines at any entry or exit point to or from the buffer tank.

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer

Wellname: _____

Representative: _____

Date: _____

BLOWOUT PREVENTOR SCHEMATIC

Minimum Requirements

OPERATION :Production Hole Section

Minimum System Pressure Rating : 10,000 psi

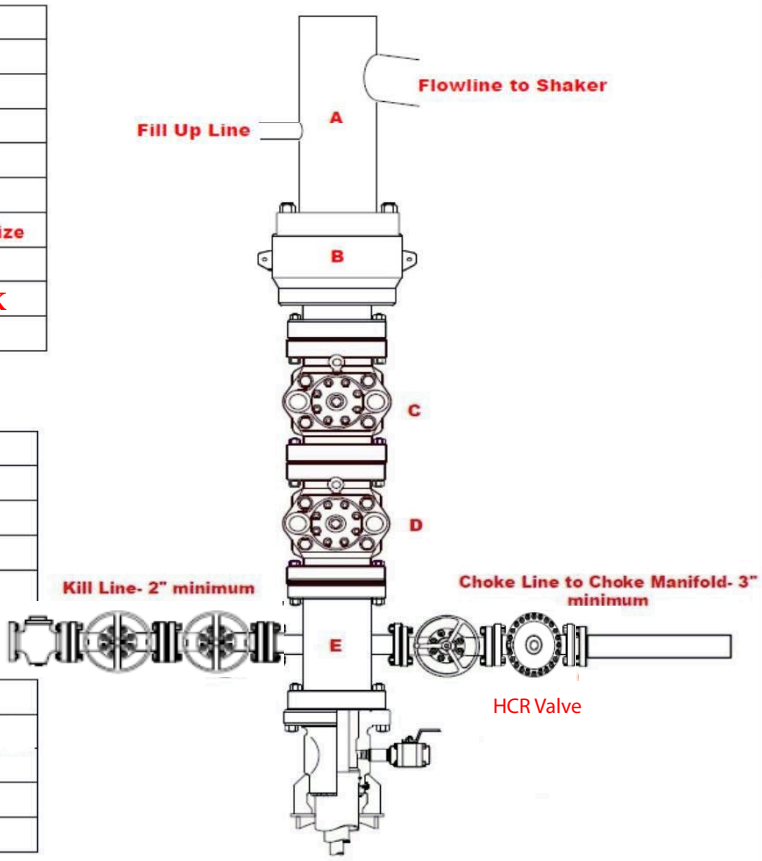
	SIZE	PRESSURE	DESCRIPTION
A		N/A	Bell Nipple
B	13 5/8"	10,000 psi	Annular
C	13 5/8"	10,000 psi	Pipe Ram
D	13 5/8"	10,000 psi	Blind Ram
E	13 5/8"	10,000 psi	Mud Cross
F			
DSA		As required for each hole size	
C-Sec		13-5/8" 10K	
B-Sec		13-5/8" 10K x 13-5/8" 5K	
A-Sec		13-3/8" SOW x 13-5/8" 5K	

Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	10,000 psi	Gate Valve
2"	10,000 psi	Gate Valve
2"	10,000 psi	Check Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
3"	10,000 psi	Gate Valve
3"	10,000 psi	HCR Valve



Installation Checklist

The following item must be verified and checked off prior to pressure testing of BOP equipment.

- ☐ **The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.**
- ☐ **All valves on the kill line and choke line will be full opening and will allow straight though flow.**
- ☐ **The kill line and choke line will be straight unless turns use tee blocks or are targeted with running tess, and will be anchored to prevent whip and reduce vibration.**
- ☐ **Manual (hand wheels) or automatic locking devices will be installed on all ram preventers. Hand wheels will also be installed on all manual valves on the choke line and kill line.**
- ☐ **A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will remain open unless accumulator is inoperative.**
- ☐ **Upper kelly cock valve with handle will be available on rig floor along with safety valve and subs to fit all drill string connections in use.**

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer

Wellname: _____

Representative: _____

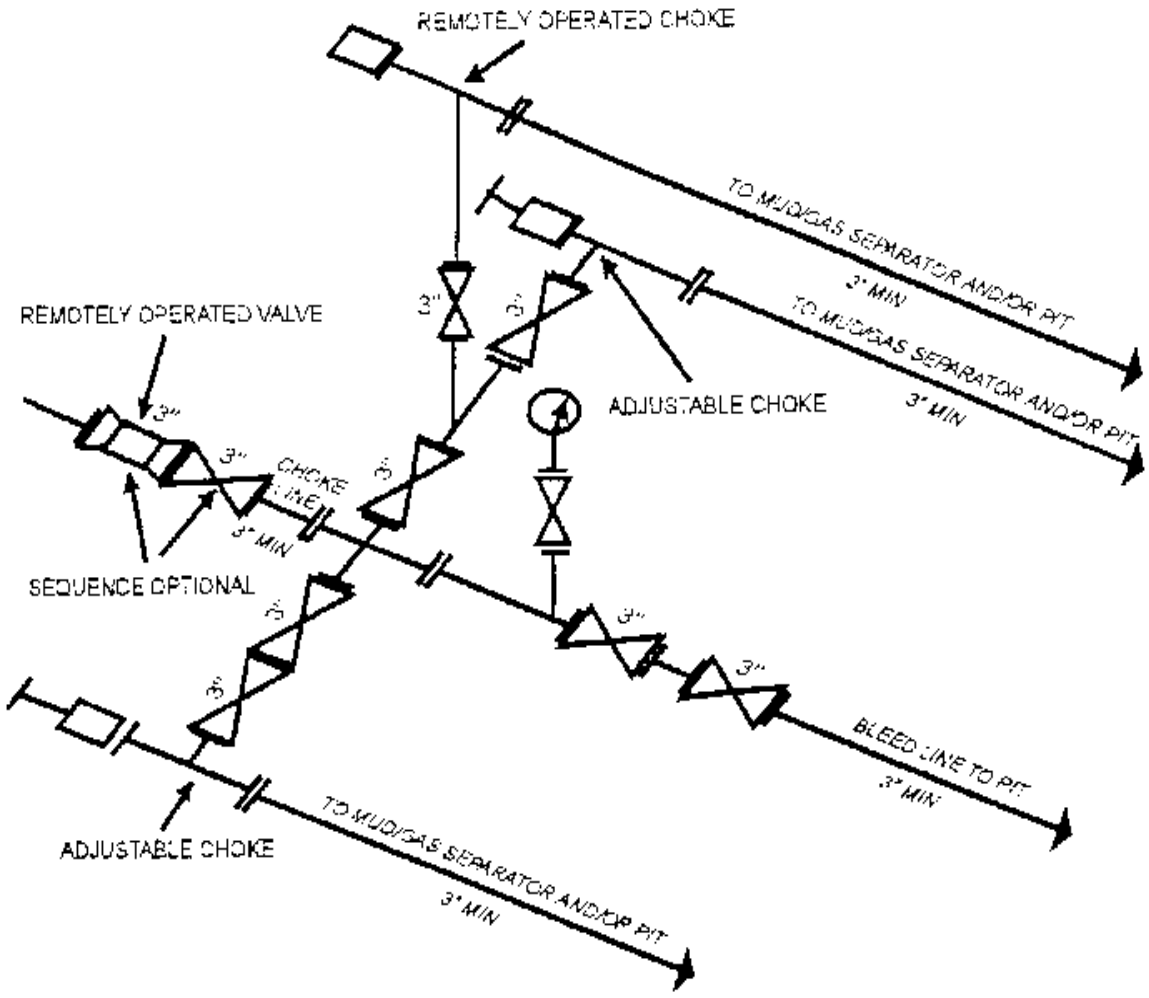
Date: _____

10M Choke Manifold SCHEMATIC

Minimum Requirements

OPERATION: Production Hole Sections

Minimum System Pressure Rating: **10,000 PSI**



10M AND 15M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

(53 FR 49661, Dec. 9, 1988 and 54 FR 39528, Sept. 27, 1989)

BOPE Testing

Minimum Requirements

Closing Unit and Accumulator Checklist

The following item must be performed, verified, and checked off at least once per well prior to low/high pressure testing of BOP equipment. This must be repeated after 6 months on the same well.

☐ **Precharge pressure for each accumulator bottle must fall within the range below. Bottles may be further charged with nitrogen gas only. Tested precharge pressures must be recorded for each individual bottle and kept on location through the end of the well. Test will be conducted prior to connecting unit to BOP stack.**

Check one that applies	Accumulator working pressure rating	Minimum acceptable operating pressure	Desired precharge pressure	Maximum acceptable precharge pressure	Minimum acceptable precharge pressure
☐	1500 psi	1500 psi	750 psi	800 psi	700 psi
☐	2000 psi	2000 psi	1000 psi	1100 psi	900 psi
☐	3000 psi	3000 psi	1000 psi	1100 psi	900 psi

☐ **Accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if used), close all rams, close the annular preventer, and retain a minimum of 200 psi above the maximum acceptable precharge pressure (see table above) on the closing manifold without the use of the closing pumps. This test will be performed with test pressure recorded and kept on location through the end of the well**

☐ **Accumulator fluid reservoir will be double the usable fluid volume of the accumulator system capacity. Fluid level will be maintained at manufacturer's recommendations. Usable fluid volume will be recorded. Reservior capacity will be recorded. Reservoir fluid level will be recorded along with manufacturer's recommendation. All will be kept on location through the end of the well.**

☐ **Closing unit system will have two independent power sources (not counting accumulator bottles) to close the preventers.**

☐ **Power for the closing unit pumps will be available to the unit at all times so that the pumps will automatically start when the closing valve manifold pressure decreases to the pre-set level. It is recommended to check that air line to accumulator pump is "ON" during each tour change.**

☐ **With accumulator bottles isolated, closing unit will be capable of opening the hydraulically-operated choke line valve (if used) plus close the annular preventer on the smallest size drill pipe within 2 minutes and obtain a minimum of 200 psi above maximum acceptable precharge pressure (see table above) on the closing manifold. Test pressure and closing time will be recorded and kept on location through the end of the well.**

☐ **Master controls for the BOPE system will be located at the accumulator and will be capable of opening and closing all preventer and the choke line valve (if used)**

☐ **Remote controls for the BOPE system will be readily accessible (clear path) to the driller and located on the rig floor (not in the dog house). Remote controls will be capable of closing all preventers.**

☐ **Record accumulator tests in drilling reports and IADC sheet**

BOPE Test Checklist

The following item must be ckecked off prior to beginning test

☐ **BLM will be given at least 4 hour notice prior to beginning BOPE testing**

☐ **Valve on casing head below test plug will be open**

☐ **Test will be performed using clear water.**

The following item must be performed during the BOPE testing and then checked off

☐ **BOPE will be pressure tested when initially installed, whenever any seal subject to test pressure is broken, following related repairs, and at a minimum of 30 days intervals. Test pressure and times will be recorded by a 3rd party on a test chart and kept on location through the end of the well.**

☐ **Test plug will be used**

☐ **Ram type preventer and all related well control equipment will be tested to 250 psi (low) and 5,000 psi (high).**

☐ **Annular type preventer will be tested to 250 psi (low) and 3,500 psi (high).**

☐ **Valves will be tested from the working pressure side with all down stream valves open. The check valve will be held open to test the kill line valve(s)**

☐ **Each pressure test will be held for 10 minutes with no allowable leak off.**

☐ **Master controls and remote controls to the closing unit (accumulator) must be function tested as part of the BOP testing**

☐ **Record BOP tests and pressures in drilling reports and IADC sheet**

After Installation Checklist is complete, fill out the information below and email to Superintendent and Drilling Engineer along with any/all BOP and accumulator test charts and reports from 3rd parties.

Wellname: _____

Representative: _____

Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 27220

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	4323
	Action Number: 27220
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	6/22/2021
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	6/22/2021